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L1 STRUCTURE UPLOADED

=> s 11

SAMPLE SEARCH INITIATED 11:32:53 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 131 TO ITERATE

100.0% PROCESSED 131 ITERATIONS 4 ANSWERS

SEARCH TIME: 00.00.03

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 1934 TO 3306 PROJECTED ANSWERS: 4 TO 200

L24 SEA SSS SAM L1

=> d 11

L1 HAS NO ANSWERS

L1

STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

=> s 11 sss ful

FULL SEARCH INITIATED 11:33:50 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 2645 TO ITERATE

100.0% PROCESSED 2645 ITERATIONS 61 ANSWERS

SEARCH TIME: 00.00.03

L3 61 SEA SSS FUL L1

≕> s 13

L4

3 L3

=> d 14 1-3 bib,ab,hitstr

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ANSWER 1 OF 3 CAPLUS COPYRIGHT 2002 ACS
L4
AN
        2001:730744 CAPLUS
DN
       135:288790
       Pyrrolopyrimidines as tyrosine kinase inhibitors
TI
       Hirst, Gavin C.; Calderwood, David; Munschauer, Rainer; Arnold, Lee D.;
IN
       Johnston, David N.; Rafferty, Paul
PA
       Basf Aktiengesellschaft, Germany
SO
       PCT Int. Appl., 453 pp.
       CODEN: PIXXD2
DT
       Patent
LA
       English
FAN.CNT 1
       PATENT NO.
                                  KIND DATE
                                                                 APPLICATION NO. DATE
                                                                 WO 2000-US8593
       WO 2001072751
                                 A1
                                            20011004
                                                                                              20000329
ΡI
              W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR,
                    CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,
                    ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
                    LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE,
             LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RO, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
                    CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
OS
       MARPAT 135:288790
AB
       Chem. compds. having structural formula I and physiol. acceptable salts
       and metabolites thereof, are inhibitors of serine/threonine and tyrosine
       kinase activity. Several of the kinases, whose activity is inhibited by
       these chem. compds., are involved in immunol., hyperproliferative, or
       angiogenic processes. Thus, these chem. compds. can ameliorate disease
       states where angiogenesis or endothelial cell hyperproliferation is a
       factor. These compds. can be used to treat cancer and hyperproliferative
       disorders, rheumatoid arthritis, disorders of the immune system,
       transplant rejections and inflammatory disorders. All exemplified compds.
       significantly inhibited either FGFR, PDGFR, KDR, Tie-2, Lck, Fyn, Blk,
       Lyn, or Src at .ltoreq.50 .mu.M, and some significantly inhibited cdc2 at
        .ltoreq.50 .mu.M. In I, ring A is a six membered arom. ring or a five or
       six membered heteroarom. ring which is optionally substituted. L is -O-,
       -S-, -S(O)-, -S(O)2-, -N(R)-, -N[C(O)OR]-, -N[C(O)R]-, -N(SO2R)-, -CH2O-;
       -CH2S-, -CH2N(R)-, -C(NR)-;-CH2N[C(O)R]-, -CH2N[C(O)OR]-, -CH2N(SO2R)-,
       -CH(NHR)-, -CH[NHC(O)R]-, -CH(NHSO2R)-, -CH[NHC(O)OR]-, -CH[OC(O)R]-,
       -CH[OC(O)NHR]_-, -CH:CH_-; -C(:NOR)_-, -C(O)_-, -CH(OR)_-, -C(O)N(R)_-,
       -N(R)C(O)-, -N(R)S(O)-, -N(R)S(O)2-, -OC(O)N(R)-, -N(R)C(O)N(R)-,
       -NRC(0)O-, -S(0)N(R)-, -S(0)2N(R)-, -N[C(0)R]S(0)-, -N[C(0)R]S(0)2-,
       -N(R)S(O)N(R)-, -N(R)S(O)2N(R)-, -C(O)N(R)C(O)-, -S(O)N(R)C(O)-,
       -S(0)2N(R)C(0)-, -OS(0)N(R)-, -OS(0)2N(R)-, -N(R)S(0)O-, -N(R)S(0)2O-,
       -N(R)S(O)C(O)-, -N(R)S(O)2C(O)-, -SON[C(O)R]-, -SO2N[C(O)R]-,
       -N(R)SON(R) -, -N(R)SO2N(R) -, -C(O)O -, -N(R)P(OR')O -, -N(R)P(OR') -
       N(R)P(O)(OR')O-, -N(R)P(O)(OR')-, -N[C(O)R]P(OR')O-, -N[C(O)R]P(OR')-,
       -N[C(O)R]P(O)(OR')O-, -N[C(O)R]P(OR')-, -CH(R)S(O)-, or -CH(R)S(O)2-.
       is also -CH(R)N[C(0)OR]-, -CH(R)N[C(0)R]-, -CH(R)N(SO2R), -CH(R)O-,
       -CH(R)S-, -CH(R)N(R)-, -CH(R)N[C(0)R]-, -CH(R)N[C(0)OR]-, -CH(R)N(SO2R)-,
       -CH(R)C(:NOR)-, -CH(R)C(O)-, -CH(R)CH(OR)-, -CH(R)C(O)N(R)-,
       -CH(R)N(R)C(O)-, -CH(R)N(R)S(O)-, -CH(R)N(R)S(O)2-, -CH(R)OC(O)N(R)-,
       -CH(R)N(R)C(O)N(R)-, -CH(R)N(R)C(O)O-, -CH(R)S(O)N(R)-, -CH(R)S(O)2N(R)-,
       -CH(R)N[C(0)R]S(0)-, -CH(R)N[C(0)R]S(0)2-, -CH(R)N(R)S(0)N(R)-,
       -CH(R)N(R)S(O)2N(R)-, -CH(R)C(O)N(R)C(O)-, -CH(R)S(O)N(R)C(O)-,
       -CH(R)S(O)2N(R)C(O)-, -CH(R)OS(O)N(R)-, -CH(R)OS(O)2N(R)-,
```

-CH(R)N(R)S(O)O-, -CH(R)N(R)S(O)2O-, -CH(R)N(R)S(O)C(O)-, -CH(R)N(R)S(O)2C(O)-, -CH(R)SON[C(O)R]-, -CH(R)S(O)2N[C(O)R]-, -CH(R)N(R)SON(R)-, -CH(R)N(R)S(O)2N(R)-; -CH(R)C(O)O-, -CH(R)N(R)P(OR')O-, -CH(R)N(R)P(OR')-, -CH(R)N(R)P(O)(OR')O-, -CH(R)N(R)P(O)(OR')-, -CH(R)N[C(O)R]P(OR')O-, -CH(R)N[C(O)R]P(OR')-, -CH(R)N[C(O)R]P(O)(OR')Oor -CH(R)N[C(O)R]P(OR')-. In L, each R and R' is, independently, -H, acyl, substituted or unsubstituted aliph., arom., arylalkyl, heteroarom., cycloalkyl or arylalkyl; or L is -RbN(R)S(O)2-, -RbN(R)P(O)-, or -RbN(R)P(O)O-, wherein Rb is an alkylene group which when taken together with the sulfonamide, phosphinamide, or phosphonamide group to which it is bound forms a five or six membered ring fused to ring A; or L is II (X = 0)or nil; Y = O or nil) or III (Y = O, nil) wherein R85 taken together with the phosphinamide, or phosphonamide is a 5-, 6-, or 7-membered, arom., heteroarom. or heterocycloalkyl ring system. G is a direct bond, -(CH2)j-(j = 1-6), C2-C6-alkenylene, C3-C8-cycloalkylene or C1-C6-oxaalkylene group. R1 is substituted or optionally substituted aliph., cycloalkyl, bicycloalkyl, cycloalkenyl, arom., heteroarom., heteroaralkyl, heterocycloalkyl, heterobicycloalkyl, alkylamido, arylamido, -S(0)2-alkyl, -S(0)2-cycloalkyl, -C(0)alkyl, or -B-E, wherein B is substituted or unsubstituted cycloalkyl, heterocycloalkyl, arom., heteroarom., alkylene, aminoalkyl, alkylenecarbonyl, or aminoalkylcarbonyl and E is substituted or unsubstituted azacycloalkyl, azacycloalkylcarbonyl, azacycloalkylsulfonyl, azacycloalkylalkyl, heteroaryl, heteroarylcarbonyl, heteroarylsulfonyl, heteroaralkyl, alkyl sulfonamido, aryl sulfonamido, bicycloalkyl, ureido, thioureido or aryl. R2 is -H or substituted or unsubstituted aliph., cycloalkyl, halogen, -OH, cyano, arom., heteroarom., heterocycloalkyl, aralkyl, heteroaralkyl, -(CH2)0-3NR4R5, or -(CH2)0-3C(O)NR4R5. R3 is substituted or unsubstituted aliph., alkenyl, cycloalkyl, arom., heteroarom., or heterocycloalkyl with provisos. R4, R5 and the N atom together form a 3, 4, 5, 6 or 7-membered, substituted or unsubstituted heterocycloalkyl, heterobicycloalkyl or heteroarom.; or R4 and R5 are each, independently, -H, azabicycloalkyl, heterocycloalkyl, substituted or unsubstituted alkyl or Y-Z; Y is -C(0)-, -(CH2)p-, -S(0)2-, -C(0)O-, -SO2NH-, -CONH-, -(CH2)pO-, -(CH2)pNH-, -(CH2)pS-, -(CH2)pS(O)-, and -(CH2)pS(0)2-; p = 0-6; and Z is -H, or substituted or unsubstituted alkyl, amino, aryl, heteroaryl or heterocycloalkyl. 546 Example prepns. are included. For example, addn. of piperidine to 4-[4-amino-5-(4phenoxyphenyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl]cyclohexanone in DCE and AcOH, followed by treatment with Na[(AcO)3BH], workup and chromatog., gave cis- and trans-IV.

# IT 262444-13-3P 262444-14-4P 262444-16-6P 262444-17-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(intermediate; prepn. of pyrrolopyrimidinamines as protein kinase inhibitors)

RN 262444-13-3 CAPLUS

CN Carbamic acid, [4-[4-amino-7-(tetrahydro-2H-pyran-4-yl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, 3-pyridinylmethyl ester (9CI) (CA INDEX NAME)

RN 262444-14-4 CAPLUS

CN Carbamic acid, [4-[4-amino-7-(tetrahydro-2H-pyran-4-yl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, 2-(4-morpholinyl)ethyl ester (9CI) (CA INDEX NAME)

RN 262444-16-6 CAPLUS

CN Carbamic acid, [4-[4-amino-7-(tetrahydro-2H-pyran-4-yl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, 2-pyridinylmethyl ester (9CI) (CA INDEX NAME)

χ

RN 262444-17-7 CAPLUS

CN Carbamic acid, [4-[4-amino-7-(tetrahydro-2H-pyran-4-yl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, 4-pyridinylmethyl ester (9CI) (CA INDEX NAME)

### IT 262444-51-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; prepn. of pyrrolopyrimidinamines as protein kinase inhibitors)

RN 262444-51-9 CAPLUS

CN Benzenepropanamide, N-[4-[4-amino-7-(4-oxocyclohexyl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]- (9CI) (CA INDEX NAME)

# IT 364354-19-8P 364354-56-3P 364354-57-4P 364354-68-7P 364356-13-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of pyrrolopyrimidinamines as protein kinase inhibitors)

RN 364354-19-8 CAPLUS

CN Acetamide, N-[5-[4-amino-7-[trans-4-(4-methyl-1-piperazinyl)cyclohexyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-phenoxyphenyl]-, monoacetate (9CI) (CA INDEX NAME)

CM 1

CRN 364354-18-7 CMF C31 H37 N7 O2

CM 2

CRN 64-19-7 CMF C2 H4 O2

RN 364354-56-3 CAPLUS

CN 2-Propenamide, N-[4-[4-amino-7-[cis-4-(4-methyl-1-piperazinyl)cyclohexyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-3-phenyl-, (2E)- (9CI) (CA INDEX NAME)

Relative stereochemistry. Double bond geometry as shown.

RN 364354-57-4 CAPLUS
CN Benzeneacetamide, N-[4-[4-amino-7-[cis-4-(4-methyl-1-piperazinyl)cyclohexyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-(9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 364354-68-7 CAPLUS CN Benzenebutanamide, N-[4-[4-amino-7-[cis-4-(4-methyl-1-  $^{\circ}$ 

piperazinyl)cyclohexyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl](9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 364356-13-8 CAPLUS

CN Benzenemethanesulfonamide, N-[4-[4-amino-7-[cis-4-(4-methyl-1-piperazinyl)cyclohexyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-fluorophenyl]-2-nitro-, (2Z)-2-butenedioate (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 262443-68-5 CMF C30 H35 F N8 O4 S

PAGE 1-A

PAGE 2-A | NO2

CM 2

CRN 110-16-7 CMF C4 H4 O4 CDES 2:Z

Double bond geometry as shown.

## IT 262442-79-5

RL: RCT (Reactant); RACT (Reactant or reagent)
 (reactant; prepn. of pyrrolopyrimidinamines as protein kinase
 inhibitors)

RN 262442-79-5 CAPLUS

CN Carbamic acid, [4-[4-amino-7-[trans-4-(4-methyl-1-piperazinyl)cyclohexyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

Relative stereochemistry.

IT 262439-86-1P 262439-87-2P 262439-90-7P 262439-91-8P 262439-92-9P 262439-96-3P 262439-97-4P 262439-98-5P 262439-99-6P 262440-00-6P 262440-04-0P 262440-06-2P 262442-22-8P 262442-32-0P 262442-33-1P 262442-39-7P 262442-47-7P 262442-80-8P 262443-69-6P 262443-91-4P 262444-01-9P 262444-02-0P 262444-03-1P 262444-68-8P 262445-41-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(target compd.; prepn. of pyrrolopyrimidinamines as protein kinase inhibitors)

RN 262439-86-1 CAPLUS

CN Carbamic acid, [4-[4-amino-7-(tetrahydro-2H-pyran-4-yl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 262439-87-2 CAPLUS

CN Carbamic acid, [4-[4-amino-7-(tetrahydro-2H-pyran-4-yl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, 2,2-dimethylpropyl ester (9CI) (CA INDEX NAME)

RN 262439-90-7 CAPLUS

CN Carbamic acid, [4-[4-amino-7-(tetrahydro-2H-pyran-4-yl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, 3-pyridinylmethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

HCl

RN 262439-91-8 CAPLUS

CN Carbamic acid, [4-[4-amino-7-(tetrahydro-2H-pyran-4-yl)-7H-pyrrolo[2,3-

d]pyrimidin-5-yl]-2-methoxyphenyl]-, 2-(4-morpholinyl)ethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

### HCl

RN 262439-92-9 CAPLUS

CN Carbamic acid, [4-[4-amino-7-(tetrahydro-2H-pyran-4-yl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, (4-bromo-5-thiazolyl)methyl ester (9CI) (CA INDEX NAME)

RN 262439-96-3 CAPLUS

CN Carbamic acid, [4-[4-amino-7-(tetrahydro-2H-pyran-4-yl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, 2-pyridinylmethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

### HCl

RN 262439-97-4 CAPLUS

CN Carbamic acid, [4-[4-amino-7-(tetrahydro-2H-pyran-4-yl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, 4-pyridinylmethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

# ● HCl

RN 262439-98-5 CAPLUS

CN Carbamic acid, [4-[4-amino-7-(tetrahydro-2H-pyran-4-yl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, (5-methyl-3-isoxazolyl)methyl ester (9CI) (CA INDEX NAME)

RN 262439-99-6 CAPLUS

CN Carbamic acid, [4-[4-amino-7-(tetrahydro-2H-pyran-4-yl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, [(2S)-5-oxo-2-pyrrolidinyl]methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 262440-00-6 CAPLUS

CN Carbamic acid, [4-[4-amino-7-(tetrahydro-2H-pyran-4-yl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, (4-aminophenyl)methyl ester (9CI) (CA INDEX NAME)

RN 262440-04-0 CAPLUS

CN Propanamide, N-[4-[4-amino-7-(tetrahydro-2H-pyran-4-yl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-2,2-dimethyl- (9CI) (CA INDEX NAME)

RN 262440-06-2 CAPLUS

CN Benzenepropanamide, N-[4-[4-amino-7-(tetrahydro-2H-pyran-4-yl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]- (9CI) (CA INDEX NAME)

RN 262442-22-8 CAPLUS

CN Benzenepropanamide, N-[4-[4-amino-7-[cis-4-(4-methyl-1-piperazinyl)cyclohexyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-(9CI) (CA INDEX NAME)

RN 262442-32-0 CAPLUS

CN Acetamide, N-[4-[4-amino-7-[cis-4-(4-methyl-1-piperazinyl)cyclohexyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-2-phenoxy- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 262442-33-1 CAPLUS

CN Acetamide, N-[4-[4-amino-7-[cis-4-(4-methyl-1-piperazinyl)cyclohexyl]-7H-

pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-2-(4-chlorophenoxy)- (9CI)
(CA INDEX NAME)

Relative stereochemistry.

PAGE 1-A

PAGE 2-A

RN 262442-39-7 CAPLUS

CN Acetamide, N-[4-[4-amino-7-[cis-4-(4-methyl-1-piperazinyl)cyclohexyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-2-(phenylmethoxy)- (9CI) (CA INDEX NAME)

RN 262442-47-7 CAPLUS

CN Acetamide, N-[4-[4-amino-7-[cis-4-(4-methyl-1-piperazinyl)cyclohexyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-2-methoxy- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 262442-80-8 CAPLUS

CN Carbamic acid, [4-[4-amino-7-[trans-4-(4-methyl-1-piperazinyl)cyclohexyl]-

7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, phenylmethyl ester, (2Z)-2-butenedioate (1:3) (9CI) (CA INDEX NAME)

CM 1

CRN 262442-79-5 CMF C32 H39 N7 O3

Relative stereochemistry.

CM 2

CRN 110-16-7 CMF C4 H4 O4 CDES 2:Z

Double bond geometry as shown.

RN 262443-69-6 CAPLUS

CN Benzenemethanesulfonamide, N-[4-[4-amino-7-[cis-4-(4-methyl-1-piperazinyl)cyclohexyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-fluorophenyl]-2-nitro-, (2Z)-2-butenedioate (1:3) (9CI) (CA INDEX NAME)

CM 1

CRN 262443-68-5 CMF C30 H35 F N8 O4 S Relative stereochemistry.

PAGE 1-A

PAGE 2-A | NO2

CM 2

CRN 110-16-7 CMF C4 H4 O4 CDES 2:Z

Double bond geometry as shown.

RN 262443-91-4 CAPLUS

CN Carbamic acid, [4-[4-amino-7-(tetrahydro-2H-pyran-4-yl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, 1,3-dioxolan-4-ylmethyl ester (9CI) (CA INDEX NAME)

RN 262444-01-9 CAPLUS
CN Benzenepropanamide, N-[4-[4-amino-7-[cis-4-(4-methyl-1-piperazinyl)cyclohexyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, (2Z)-2-butenedioate (1:3) (9CI) (CA INDEX NAME)

CM 1

CRN 262442-22-8 CMF C33 H41 N7 O2

Relative stereochemistry.

CM 2

CRN 110-16-7

CMF C4 H4 O4

CDES 2:Z

Double bond geometry as shown.

RN 262444-02-0 CAPLUS

CN Benzenepropanamide, N-[4-[4-amino-7-[trans-4-(4-methyl-1-piperazinyl)cyclohexyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-(9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 262444-03-1 CAPLUS

CN Benzenepropanamide, N-[4-[4-amino-7-[trans-4-(4-methyl-1-piperazinyl)cyclohexyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, (2Z)-2-butenedioate (1:3) (9CI) (CA INDEX NAME)

CM 1

CRN 262444-02-0 CMF C33 H41 N7 O2

CM 2

CRN 110-16-7 CMF C4 H4 O4 CDES 2:Z

Double bond geometry as shown.

RN 262444-68-8 CAPLUS

CN Carbamic acid, [4-[4-amino-7-[cis-4-(4-methyl-1-piperazinyl)cyclohexyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, phenylmethyl ester, (2Z)-2-butenedioate (1:3) (9CI) (CA INDEX NAME)

CM 1

CRN 262444-67-7 CMF C32 H39 N7 O3

CM 2

CRN 110-16-7 CMF C4 H4 O4 CDES 2:Z

Double bond geometry as shown.

RN 262445-41-0 CAPLUS

CN Benzenemethanesulfonamide, N-[4-[4-amino-7-[trans-4-(4-methyl-1-piperazinyl)cyclohexyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-fluorophenyl]-2-nitro-, (2Z)-2-butenedioate (1:3) (9CI) (CA INDEX NAME)

CM 1

CRN 262445-40-9 CMF C30 H35 F N8 O4 S

PAGE 1-A

CM 2

CRN 110-16-7 CMF C4 H4 O4 CDES 2:Z

Double bond geometry as shown.

RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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ANSWER 2 OF 3 CAPLUS COPYRIGHT 2002 ACS
L4
AN
     2000:210172 CAPLUS
     132:251160
DN
     Preparation of pyrrolopyrimidines as protein kinase inhibitors
ΤI
IN
     Hirst, Gavin C.; Calderwood, David; Wishart, Neil; Ritter, Kurt; Arnold,
PA
     Basf A.-G., Germany
     PCT Int. Appl., 304 pp.
SO
     CODEN: PIXXD2
DT
     Patent
     English
LΑ
FAN.CNT 1
                      KIND DATE
                                          APPLICATION NO.
     PATENT NO.
     WO 2000017203
                     A1 20000330
                                           WO 1999-US21560 19990917
PΙ
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             CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
             IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD,
             MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK,
             SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ,
             BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
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             CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                                            19990917
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                                           AU 1999-60484
                            20010711
                                           EP 1999-969415
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     NO 2001001356
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     US 1998-100833P
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     US 1998-100834P
     US 1998-100946P
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                       W
     WO 1999-US21560
                            19990917
os
     MARPAT 132:251160
     7H-Pyrrolo[2,3-d]pyrimidin-4-amines (I) [wherein A = (un)substituted
AΒ
     6-membered arom. ring or 5- or 6-membered heteroarom. ring; L =
     RbN(R)S(0)2, RbN(R)P(0), or RbN(R)P(0)0, where Rb = alkylene group which
     when taken together with the sulfonamide, phosphinamide or phosphonamide
     group to which it is bound forms a 5- or 6-membered ring fused to ring A,
     or L = 5-, 6-, or 7-membered (oxa)azaphosphaarom. or
     (oxa)azaphosphacycloalkyl ring; R = H, acyl, or (un)substituted aliph.,
     (hetero) arom., or cycloalkyl; R1 = (un) substituted (hetero) cyclic,
     (hetero) arom., amido, acyl, or (cyclo) alkylsulfonyl; R2 = H, halo, OH, CN,
     (un) substituted aliph., cycloalkyl, (hetero) arom., (hetero) aralkyl, amino,
     or amido; R3 (un) substituted aliph., alkenyl, (hetero) cycloalkyl, or
     (hetero) arom.; n = 0-6], and physiol. acceptable salts and metabolites
     thereof, were prepd. For example, addn. of piperidine to
     4-[4-amino-5-(4-phenoxyphenyl)-7H-pyrrolo[2,3-d]pyrimidin-7-
     yl]cyclohexanone in DCE and AcOH, followed by workup and chromatog., gave
     cis- and trans-II. I inhibit serine/threonine and tyrosine kinase
     activity, which are involved in immunol., hyperproliferative, and
     angiogenic processes. All exemplified compds. significantly inhibited
     either FGFR, PDGFR, KDR, Tie-2, Lck, Fyn, Blk, Lyn, or Src at concns. of
     .ltoreq. 50 .mu.M, and some significantly inhibited cdc2 at concns. of 50
     .ltoreq. .mu.M. Thus, these compds. are useful in the treatment of cancer
     and hyperproliferative disorders, rheumatoid arthritis, disorders of the
```

immune system, transplant rejections, and inflammatory disorders.

# IT 262444-13-3P 262444-14-4P 262444-16-6P 262444-17-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(intermediate; prepn. of 7H-pyrrolo[2,3-d]pyrimidin-4-amines as protein kinase inhibitors)

RN 262444-13-3 CAPLUS

CN Carbamic acid, [4-[4-amino-7-(tetrahydro-2H-pyran-4-yl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, 3-pyridinylmethyl ester (9CI) (CA INDEX NAME)

RN 262444-14-4 CAPLUS

CN Carbamic acid, [4-[4-amino-7-(tetrahydro-2H-pyran-4-yl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, 2-(4-morpholinyl)ethyl ester (9CI) (CA INDEX NAME)

RN 262444-16-6 CAPLUS

CN Carbamic acid, [4-[4-amino-7-(tetrahydro-2H-pyran-4-yl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, 2-pyridinylmethyl ester (9CI) (CA INDEX NAME)

RN 262444-17-7 CAPLUS

CN Carbamic acid, [4-[4-amino-7-(tetrahydro-2H-pyran-4-yl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, 4-pyridinylmethyl ester (9CI) (CA INDEX NAME)

### IT 262444-51-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; prepn. of 7H-pyrrolo[2,3-d]pyrimidin-4-amines as protein kinase inhibitors)

RN 262444-51-9 CAPLUS

CN Benzenepropanamide, N-[4-[4-amino-7-(4-oxocyclohexyl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]- (9CI) (CA INDEX NAME)

### IT 262442-79-5

RL: RCT (Reactant); RACT (Reactant or reagent)
 (reactant; prepn. of 7H-pyrrolo[2,3-d]pyrimidin-4-amines as protein
 kinase inhibitors)

RN 262442-79-5 CAPLUS

CN Carbamic acid, [4-[4-amino-7-[trans-4-(4-methyl-1-piperazinyl)cyclohexyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

Relative stereochemistry.

IT 262439-86-1P 262439-87-2P 262439-90-7P 262439-91-8P 262439-92-9P 262439-96-3P 262439-97-4P 262439-98-5P 262439-99-6P 262440-00-6P 262440-04-0P 262440-06-2P 262442-22-8P 262442-32-0P 262442-33-1P 262442-39-7P 262442-47-7P 262442-80-8P 262443-69-6P 262443-91-4P 262444-01-9P 262444-02-0P 262444-03-1P 262444-68-8P 262445-41-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(target compd.; prepn. of 7H-pyrrolo[2,3-d]pyrimidin-4-amines as protein kinase inhibitors)

RN 262439-86-1 CAPLUS

CN Carbamic acid, [4-[4-amino-7-(tetrahydro-2H-pyran-4-yl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 262439-87-2 CAPLUS

CN Carbamic acid, [4-[4-amino-7-(tetrahydro-2H-pyran-4-yl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, 2,2-dimethylpropyl ester (9CI) (CA INDEX NAME)

RN 262439-90-7 CAPLUS

CN Carbamic acid, [4-[4-amino-7-(tetrahydro-2H-pyran-4-yl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, 3-pyridinylmethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

• HCl

RN 262439-91-8 CAPLUS

CN Carbamic acid, [4-[4-amino-7-(tetrahydro-2H-pyran-4-yl)-7H-pyrrolo[2,3-

d]pyrimidin-5-yl]-2-methoxyphenyl]-, 2-(4-morpholinyl)ethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

### ● HCl

RN 262439-92-9 CAPLUS

CN Carbamic acid, [4-[4-amino-7-(tetrahydro-2H-pyran-4-yl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, (4-bromo-5-thiazolyl)methyl ester (9CI) (CA INDEX NAME)

RN 262439-96-3 CAPLUS

CN Carbamic acid, [4-[4-amino-7-(tetrahydro-2H-pyran-4-yl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, 2-pyridinylmethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

### ● HCl

RN 262439-97-4 CAPLUS

CN Carbamic acid, [4-[4-amino-7-(tetrahydro-2H-pyran-4-yl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, 4-pyridinylmethyl ester, monohydrochloride (9CI) (CA INDEX NAME)

## ● HCl

RN 262439-98-5 CAPLUS

CN Carbamic acid, [4-[4-amino-7-(tetrahydro-2H-pyran-4-yl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, (5-methyl-3-isoxazolyl)methyl ester (9CI) (CA INDEX NAME)

RN 262439-99-6 CAPLUS

CN Carbamic acid, [4-[4-amino-7-(tetrahydro-2H-pyran-4-yl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, [(2S)-5-oxo-2-pyrrolidinyl]methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 262440-00-6 CAPLUS

CN Carbamic acid, [4-[4-amino-7-(tetrahydro-2H-pyran-4-yl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, (4-aminophenyl)methyl ester (9CI) (CA INDEX NAME)

RN 262440-04-0 CAPLUS

CN Propanamide, N-[4-[4-amino-7-(tetrahydro-2H-pyran-4-yl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-2,2-dimethyl- (9CI) (CA INDEX NAME)

RN 262440-06-2 CAPLUS

CN Benzenepropanamide, N-[4-[4-amino-7-(tetrahydro-2H-pyran-4-yl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]- (9CI) (CA INDEX NAME)

RN 262442-22-8 CAPLUS

CN Benzenepropanamide, N-[4-[4-amino-7-[cis-4-(4-methyl-1-piperazinyl)cyclohexyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-(9CI) (CA INDEX NAME)

RN 262442-32-0 CAPLUS

CN Acetamide, N-[4-[4-amino-7-[cis-4-(4-methyl-1-piperazinyl)cyclohexyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-2-phenoxy- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 262442-33-1 CAPLUS

CN Acetamide, N-[4-[4-amino-7-[cis-4-(4-methyl-1-piperazinyl)cyclohexyl]-7H-

pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-2-(4-chlorophenoxy)- (9CI)
(CA INDEX NAME)

Relative stereochemistry.

PAGE 1-A

RN 262442-39-7 CAPLUS

CN Acetamide, N-[4-[4-amino-7-[cis-4-(4-methyl-1-piperazinyl)cyclohexyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-2-(phenylmethoxy)- (9CI) (CA INDEX NAME)

RN 262442-47-7 CAPLUS

CN Acetamide, N-[4-[4-amino-7-[cis-4-(4-methyl-1-piperazinyl)cyclohexyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-2-methoxy- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 262442-80-8 CAPLUS

CN Carbamic acid, [4-[4-amino-7-[trans-4-(4-methyl-1-piperazinyl)cyclohexyl]-

7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, phenylmethyl ester, (2Z)-2-butenedioate (1:3) (9CI) (CA INDEX NAME)

CM 1

CRN 262442-79-5 CMF C32 H39 N7 O3

Relative stereochemistry.

CM 2

CRN 110-16-7 CMF C4 H4 O4 CDES 2:Z

Double bond geometry as shown.

RN 262443-69-6 CAPLUS

CN Benzenemethanesulfonamide, N-[4-[4-amino-7-[cis-4-(4-methyl-1-piperazinyl)cyclohexyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-fluorophenyl]-2-nitro-, (2Z)-2-butenedioate (1:3) (9CI) (CA INDEX NAME)

CM 1

CRN 262443-68-5 CMF C30 H35 F N8 O4 S Relative stereochemistry.

PAGE 1-A

PAGE 2-A | NO2

CM 2

CRN 110-16-7 CMF C4 H4 O4 CDES 2:Z

Double bond geometry as shown.

RN 262443-91-4 CAPLUS

CN Carbamic acid, [4-[4-amino-7-(tetrahydro-2H-pyran-4-yl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, 1,3-dioxolan-4-ylmethyl ester (9CI) (CA INDEX NAME)

RN 262444-01-9 CAPLUS
CN Benzenepropanamide, N-[4-[4-amino-7-[cis-4-(4-methyl-1-piperazinyl)cyclohexyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, (2Z)-2-butenedioate (1:3) (9CI) (CA INDEX NAME)

CM 1

CRN 262442-22-8 CMF C33 H41 N7 O2

Relative stereochemistry.

CM 2

CRN 110-16-7 CMF C4 H4 O4 CDES 2:Z

Double bond geometry as shown.

RN 262444-02-0 CAPLUS

CN Benzenepropanamide, N-[4-[4-amino-7-[trans-4-(4-methyl-1-piperazinyl)cyclohexyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-(9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 262444-03-1 CAPLUS

CN Benzenepropanamide, N-[4-[4-amino-7-[trans-4-(4-methyl-1-piperazinyl)cyclohexyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, (2Z)-2-butenedioate (1:3) (9CI) (CA INDEX NAME)

CM 1

CRN 262444-02-0 CMF C33 H41 N7 O2

Relative stereochemistry.

CM 2

CRN 110-16-7 CMF C4 H4 O4 CDES 2:Z

Double bond geometry as shown.

RN 262444-68-8 CAPLUS

CN Carbamic acid, [4-[4-amino-7-[cis-4-(4-methyl-1-piperazinyl)cyclohexyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxyphenyl]-, phenylmethyl ester, (2Z)-2-butenedioate (1:3) (9CI) (CA INDEX NAME)

CM 1

CRN 262444-67-7 CMF C32 H39 N7 O3

Relative stereochemistry.

CM 2

CRN 110-16-7 CMF C4 H4 O4 CDES 2:Z

Double bond geometry as shown.

RN 262445-41-0 CAPLUS

CN Benzenemethanesulfonamide, N-[4-[4-amino-7-[trans-4-(4-methyl-1-piperazinyl)cyclohexyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-fluorophenyl]-2-nitro-, (2Z)-2-butenedioate (1:3) (9CI) (CA INDEX NAME)

CM 1

CRN 262445-40-9 CMF C30 H35 F N8 O4 S

Relative stereochemistry.

PAGE 1-A

CM 2

CRN 110-16-7 CMF C4 H4 O4 CDES 2:Z

Double bond geometry as shown.

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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ANSWER 3 OF 3 CAPLUS COPYRIGHT 2002 ACS
L4
     2000:210171 CAPLUS
ΑN
DN
     132:251159
     Preparation of 4-aminopyrrolopyrimidines as protein kinase inhibitors
TI
     Calderwood, David; Arnold, Lee D.; Mazdiyasni, Hormoz; Hirst, Gavin; Deng,
IN
     Bojuan B.
                                                                         Mileant's
PA
     BASF Aktiengesellschaft, Germany
SO
     PCT Int. Appl., 242 pp.
     CODEN: PIXXD2
DT
     Patent
     English
LA
FAN.CNT 1
                                                            DATE
     PATENT NO.
                      KIND DATE
                                           APPLICATION NO.
PΙ
     WO 2000017202
                     A1 20000330
                                           WO 1999-US21536 19990917
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             BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
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                                           NO 2001-1357
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PRAI US 1998-100954P
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                            19980918
     WO 1999-US21536
                      W
                            19990917
     MARPAT 132:251159
OS
     7H-Pyrrolo[2,3-d]pyrimidin-4-amines (I) [wherein A = (un)substituted
AΒ
     6-membered arom. ring or 5- or 6-membered heteroarom. ring; L =
     RbN(R)S(O)2, RbN(R)P(O), or RbN(R)P(O)O, where Rb = alkylene group which
     when taken together with the sulfonamide, phosphinamide or phosphonamide
     group to which it is bound forms a 5- or 6-membered ring fused to ring A,
     or L = O, S, N(R), 5-, 6-, or 7-membered (oxa)azaphosphaarom. or
     (oxa)azaphosphacycloalkyl ring, or a variety of linkers contg. functional
     groups; R = H, acyl, or (un)substituted aliph., (hetero)arom., or
     cycloalkyl; R1 = H, 2-Ph-1,3-dioxan-5-yl or (un)substituted (cyclo)alkyl,
     cycloalkenyl, or phenylalkyl; R2 = H, halo, OH, CN, (un)substituted
     aliph., cycloalkyl, (hetero)arom., (hetero)aralkyl, amino, or amido; R3
     (un) substituted aliph., alkenyl, (hetero) cycloalkyl, or (hetero) arom.; n =
     0-6], and physiol. acceptable salts and metabolites thereof, were prepd.
     For example, II was prepd. in a 6-step sequence involving: (1) amine
     protection of 4-bromo-2-methoxyaniline with di-tert-Bu dicarbonate, (2)
     4-addn. of diboron pinacol ester, (3) 4-substitution with
     4-chloro-7-cyclopentyl-5-iodo-7H-pyrrolo[2,3-d]pyrimidine, (4)
     deprotection of the amine with F3CCO2H, (5) 4-amination of the
     pyrrolopyrimidine, and (6) addn. of 4-cyanobenzenesulfonyl chloride to the
     anilino amine. I inhibit serine/threonine and tyrosine kinase activity,
     affecting immunol., hyperproliferative, and angiogenic processes. All
     exemplified compds. significantly inhibited either FGFR, PDGFR, KDR,
     Tie-2, Lck, Fyn, Blk, Lyn, or Src at concns. of .ltoreq. 50 .mu.M, and
     some significantly inhibited cdc2 at concns. of 50 .ltoreq. .mu.M. Thus,
     these compds. are useful in the treatment of cancer and hyperproliferative
```

disorders, rheumatoid arthritis, disorders of the immune system, transplant rejections, and inflammatory disorders.

IT 262433-21-6P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(intermediate; prepn. of 7H-pyrrolo[2,3-d]pyrimidin-4-amines as protein kinase inhibitors)

RN 262433-21-6 CAPLUS

CN Carbamic acid, [4-(4-amino-7-cyclopentyl-7H-pyrrolo[2,3-d]pyrimidin-5-yl)-2-methoxyphenyl]-, 3-pyridinylmethyl ester (9CI) (CA INDEX NAME)

IT 262433-14-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; prepn. of 7H-pyrrolo[2,3-d]pyrimidin-4-amines as protein kinase inhibitors)

RN 262433-14-7 CAPLUS

CN Carbamic acid, [5-(4-amino-7-cyclopentyl-7H-pyrrolo[2,3-d]pyrimidin-5-yl)-2-pyridinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

IT 262430-19-3P 262430-20-6P 262430-23-9P 262430-24-0P 262430-25-1P 262430-26-2P 262430-27-3P 262430-28-4P 262430-29-5P 262430-30-8P 262430-31-9P 262430-32-0P 262430-33-1P 262430-34-2P 262430-35-3P 262432-67-7P 262432-68-8P 262432-69-9P 262433-00-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(target compd.; prepn. of 7H-pyrrolo[2,3-d]pyrimidin-4-amines as protein kinase inhibitors)

RN 262430-19-3 CAPLUS

CN Carbamic acid, [4-(4-amino-7-cyclopentyl-7H-pyrrolo[2,3-d]pyrimidin-5-yl)-2-methoxyphenyl]-, 2,2-dimethylpropyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{Me}_3\text{C}-\text{CH}_2-\text{O}-\text{C}-\text{NH} \\ \text{MeO} \\ \text{H}_2\text{N} \\ \text{N} \end{array}$$

RN 262430-20-6 CAPLUS

CN Carbamic acid, [4-(4-amino-7-cyclopentyl-7H-pyrrolo[2,3-d]pyrimidin-5-yl)-2-methoxyphenyl]-, 3-pyridinylmethyl ester, hydrochloride (9CI) (CA INDEX NAME)

## ●x HCl

RN 262430-23-9 CAPLUS

CN Carbamic acid, [4-(4-amino-7-cyclopentyl-7H-pyrrolo[2,3-d]pyrimidin-5-yl)-2-methoxyphenyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 262430-24-0 CAPLUS

CN Carbamic acid, [5-(4-amino-7-cyclopentyl-7H-pyrrolo[2,3-d]pyrimidin-5-yl)-2-methoxyphenyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & OMe \\ \hline Ph-CH_2-O-C-NH \\ \hline H_2N \\ N \\ \end{array}$$

RN 262430-25-1 CAPLUS

CN Carbamic acid, [5-(4-amino-7-cyclopentyl-7H-pyrrolo[2,3-d]pyrimidin-5-yl)-2-pyridinyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 262430-26-2 CAPLUS

CN Carbamic acid, [4-(4-amino-7-cyclopentyl-7H-pyrrolo[2,3-d]pyrimidin-5-yl)-3-methoxyphenyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 262430-27-3 CAPLUS

CN Carbamic acid, [4-(4-amino-7-cyclopentyl-7H-pyrrolo[2,3-d]pyrimidin-5-yl)-2-fluorophenyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 262430-28-4 CAPLUS

CN Carbamic acid, [4-(4-amino-7-cyclopentyl-7H-pyrrolo[2,3-d]pyrimidin-5-yl)-2-(trifluoromethyl)phenyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 262430-29-5 CAPLUS

CN Carbamic acid, [4-(4-amino-7-cyclopentyl-7H-pyrrolo[2,3-d]pyrimidin-5-yl)-

2-cyanophenyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 262430-30-8 CAPLUS

CN Benzoic acid, 5-(4-amino-7-cyclopentyl-7H-pyrrolo[2,3-d]pyrimidin-5-yl)-2-[[(phenylmethoxy)carbonyl]amino]-, methyl ester (9CI) (CA INDEX NAME)

RN 262430-31-9 CAPLUS

CN Carbamic acid, [4-(4-amino-7-cyclopentyl-7H-pyrrolo[2,3-d]pyrimidin-5-yl)-2-methylphenyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 262430-32-0 CAPLUS

CN Carbamic acid, [4-(4-amino-7-cyclopentyl-7H-pyrrolo[2,3-d]pyrimidin-5-yl)phenyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

RN 262430-33-1 CAPLUS

CN Benzenemethanesulfonamide, N-[4-(4-amino-7-cyclopentyl-7H-pyrrolo[2,3-d]pyrimidin-5-yl)-2-methoxyphenyl]- (9CI) (CA INDEX NAME)

RN 262430-34-2 CAPLUS

CN Benzeneacetamide, N-[4-(4-amino-7-cyclopentyl-7H-pyrrolo[2,3-d]pyrimidin-5-yl)-2-methoxyphenyl]- (9CI) (CA INDEX NAME)

RN 262430-35-3 CAPLUS

CN 2-Thiopheneacetamide, N-[4-(4-amino-7-cyclopentyl-7H-pyrrolo[2,3-d]pyrimidin-5-yl)-2-methoxyphenyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ N & & & \\ N & & \\ NH_2 & & \\ \end{array}$$

RN 262432-67-7 CAPLUS

CN Benzenemethanesulfonamide, N-[4-(4-amino-7-cyclopentyl-7H-pyrrolo[2,3-d]pyrimidin-5-yl)-2-fluorophenyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 262432-68-8 CAPLUS

CN Benzenemethanesulfonamide, N-[4-(4-amino-7-cyclopentyl-7H-pyrrolo[2,3-d]pyrimidin-5-yl)-2-fluorophenyl]-3,4-dichloro-(9CI) (CA INDEX NAME)

RN 262432-69-9 CAPLUS

CN Benzenemethanesulfonamide, N-[4-(4-amino-7-cyclopentyl-7H-pyrrolo[2,3-d]pyrimidin-5-yl)-2-fluorophenyl]-4-fluoro- (9CI) (CA INDEX NAME)

RN 262433-00-1 CAPLUS

CN Benzenemethanesulfonamide, N-[4-(4-amino-7-cyclopentyl-7H-pyrrolo[2,3-d]pyrimidin-5-yl)-2-fluorophenyl]-2-nitro-(9CI) (CA INDEX NAME)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d his

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(FILE 'HOME' ENTERED AT 11:32:18 ON 17 MAY 2002)

FILE 'REGISTRY' ENTERED AT 11:32:24 ON 17 MAY 2002

STRUCTURE UPLOADED L1

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61 S L1 SSS FUL L3

FILE 'CAPLUS' ENTERED AT 11:34:00 ON 17 MAY 2002

3 S L3 L4

FILE 'CAOLD' ENTERED AT 11:34:42 ON 17 MAY 2002

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L5 0 L3

=> log y

SINCE FILE TOTAL ENTRY SESSION 0.38 155.19 COST IN U.S. DOLLARS

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE

E FILE TOTAL ENTRY SESSION 0.00 -1.86 CA SUBSCRIBER PRICE

STN INTERNATIONAL LOGOFF AT 11:34:56 ON 17 MAY 2002

Uploading 09399083.str

STRUCTURE UPLOADED

=> d 11

L1 HAS NO ANSWERS

STR

Structure attributes must be viewed using STN Express query preparation.

=> s 11 sss sam

SAMPLE SEARCH INITIATED 16:51:33 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 319 TO ITERATE

100.0% PROCESSED 319 ITERATIONS

21 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*
BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS:

5309 TO 7451

PROJECTED ANSWERS:

146 TO 694

21 SEA SSS SAM L1

Uploading 09399083.str

STRUCTURE UPLOADED

=> d 13

L3 HAS NO ANSWERS

• • • • • • • •

L3

STR

1 CH=== CH<sub>2</sub>

G1 O, S, N, CH2, CH, [@1-@2]

Structure attributes must be viewed using STN Express query preparation.

=> s 13 sss sam

SAMPLE SEARCH INITIATED 17:01:22 FILE 'REGISTRY'
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100.0% PROCESSED 318 ITERATIONS
SEARCH TIME: 00.00.01

7 ANSWERS

SEARCH TIME. 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*
BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 5291 TO 7429

PROJECTED ANSWERS: 7 TO 298

L4 7 SEA SSS SAM L3

=> d his

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FILE 'REGISTRY' ENTERED AT 16:50:52 ON 06 MAR 2000

L1 STRUCTURE UPLOADED

L2 21 S L1 SSS SAM

FILE 'STNGUIDE' ENTERED AT 16:52:10 ON 06 MAR 2000

FILE 'REGISTRY' ENTERED AT 17:00:44 ON 06 MAR 2000

L3 STRUCTURE UPLOADED

L4 7 S L3 SSS SAM

=> s 13 sss ful

FULL SEARCH INITIATED 17:03:39 FILE 'REGISTRY'

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142 ANSWERS

SEARCH TIME: 00.00.04

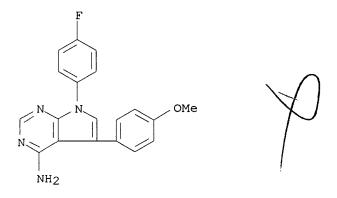
L5 142 SEA SSS FUL L3

=> s 15

L6 10 L5

=> d 16 1-10 bib, ab, hitstr

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L6
     ANSWER 1 OF 10 CAPLUS COPYRIGHT 2000 ACS
     1999:457818 CAPLUS
ΑN
     131:214251
DN
     Synthesis and reactions of fluoroaryl substituted 2-amino-3-cyanopyrroles
TΙ
     and pyrrolo[2,3-d]pyrimidines
ΑU
     Dave, Chaitanya G.; Desai, Nirmal D.
     Organic Syntheses Laboratory, M. G. Science Institute, Ahmedabad, 380
CS
009.
     J. Heterocycl. Chem. (1999), 36(3), 729-733
CODEN: JHTCAD; ISSN: 0022-152X
SO
PΒ
     HeteroCorporation
DT
     Journal
LΑ
     English
     Some fluoroaryl substituted 2-amino-3-cyanopyrroles were synthesized from
AΒ
     the reaction between (2-bromo-1-arylalkylidene)propanedinitriles and
     fluoroaryl substituted arom. amines under Gewald reaction condition,
which
     on reaction with formamide and formic acid gave 4-aminopyrrolo[2,3-
     d]pyrimidines and pyrrolo[2,3-d]-pyrimidin-4(3H)-ones (4), resp.
     4-Chloropyrrolo[2,3-d]pyrimidines were prepd. by chlorination of 4 with P
     oxychloride, which on hydrazinolysis provided 4-hydrazinopyrrolo[2,3-
     d]pyrimidines.
     243665-89-6P 243665-90-9P
ΙT
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (synthesis and reactions of fluoroaryl substituted aminocyanopyrroles
        and pyrrolo[2,3-d]pyrimidines)
     243665-89-6 CAPLUS
RN
     7H-Pyrrolo[2,3-d]pyrimidin-4-amine,
CN
7-(4-fluorophenyl)-5-(4-methoxyphenyl)-
      (9CI) (CA INDEX NAME)
```



RN 243665-90-9 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-(3-chloro-4-fluorophenyl)-5-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

Page 5

- L6 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2000 ACS
- AN 1999:309002 CAPLUS
- DN 131:124921
- TI A novel inhibitor of the tyrosine kinase Src suppresses phosphorylation of
  - its major cellular substrates and reduces bone resorption in vitro and in rodent models in vivo
- AU Missbach, M.; Jeschke, M.; Feyen, J.; Muller, K.; Glatt, M.; Green, J.; Susa, M.
- CS Novartis Pharma AG, Research Bone Metabolism, Basel, CH-4002, Switz.
- SO Bone (N. Y.) (1999), 24(5), 437-449 CODEN: BONEDL; ISSN: 8756-3282
- PB Elsevier Science Inc.
- DT Journal
- LA English
- AΒ The tyrosine kinase Src has been implicated in the process of osteoclast-mediated bone resorption. Here, we describe a novel class of Src inhibitors, substituted 5,7-diphenyl-pyrrolo[2,3-d]pyrimidines, and characterize one of them, CGP77675, in vitro and in models of bone resorption in vivo. In vitro, CGP77675 inhibited phosphorylation of peptide substrates and autophosphorylation of purified Src (concn. producing half-maximal inhibition [IC50] values 5-20 and 40 nmol/L, resp.). The compd. was selective toward other protein kinases: the Src IC50 value was lower than those for Cdc2 (>500-fold), epidermal growth factor (EGF) receptor (7.5-fold), and vascular endothelial growth factor receptor (>50-fold), and for v-Abl (15-fold) and focal adhesion kinase (Fak) (>25-fold). The Src kinase family members Lck and Yes were inhibited with IC50 values 20-fold higher than or equal to Src. To measure the inhibition of cellular Src activity, we identified the major tyrosine-phosphorylated proteins in an Src-overexpressing cell line IC8.1 as Src, Fak, and paxillin. CGP77675 potently inhibited tyrosine phosphorylation of the Src substrates Fak and paxillin, but had much less effect on Src (IC50 values 0.3, 0.5, and 5.7 .mu.mol/L). The phosphorylation of Src in IC8.1 cells reflected phosphorylation of the neg. regulatory tyrosine 527 (Y527); thus, the inhibitor was selective against the Y527 C-terminal Src kinase Csk. In osteoblastic MC3T3-E1 cells, CGP77675 inhibited signaling induced by PDGF at the receptor level,

but not signaling by EGF, basic fibroblast growth factor, insulin-like growth factor-1, and phorbol 12-myristate 13-acetate. The effect of CGP77675 on bone resorption was evaluated in vitro and in vivo. The parathyroid hormone-induced bone resorption in rat fetal long bone cultures was inhibited with an IC50 of 0.8 .mu.mol/L. CGP77675 dose-dependently reduced the hypercalcemia induced in mice by interleukin-1.beta. and partly prevented bone loss and microarchitectural changes in young ovariectomized rats, showing that the protective effect on bone was exerted via the inhibition of bone resorption. Thus, specific

Src family kinase inhibitors may be useful for the treatment of diseases assocd. With elevated bone loss.

IT 234772-58-8 234772-59-9 234772-60-2 234772-61-3 234772-62-4 234772-63-5

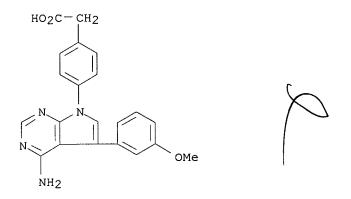
RL: BAC (Biological activity or effector, except adverse); PRP (Properties); BIOL (Biological study)

(inhibitor of tyrosine kinase Src suppresses phosphorylation of its major cellular substrates and reduces bone resorption in vitro and in

## 09/399,083

rodent models in vivo)
RN 234772-58-8 CAPLUS
CN Benzeneethanol,
4-[4-amino-5-(3-methoxyphenyl)-7H-pyrrolo[2,3-d]pyrimidin7-yl]- (9CI) (CA INDEX NAME)

RN 234772-59-9 CAPLUS
CN Benzeneacetic acid, 4-[4-amino-5-(3-methoxyphenyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl]- (9CI) (CA INDEX NAME)



RN 234772-60-2 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine,
7-[4-[2-(dimethylamino)ethyl]phenyl]-5(3-methoxyphenyl)- (9CI) (CA INDEX NAME)

RN 234772-61-3 CAPLUS

CN Ethanol,

2-[[2-[4-[4-amino-5-(3-methoxyphenyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl]phenyl]ethyl]amino]- (9CI) (CA INDEX NAME)

RN 234772-62-4 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-[4-[2-[(2-methoxyethyl)methylamino]ethyl]phenyl]-5-(3-methoxyphenyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{Me} \\ \text{MeO-CH}_2\text{-CH}_2\text{-N-CH}_2\text{-CH}_2 \\ \\ \text{N} \\ \text{N} \\ \text{N} \\ \text{N} \\ \text{N} \\ \text{OMe} \end{array}$$

RN 234772-63-5 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine,
5-(3-methoxyphenyl)-7-[4-[2-(4-methyl1-piperazinyl)ethyl]phenyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{MeO} \\ \text{H}_2\text{N} \\ \text{N} \\ \text{N} \end{array} \qquad \begin{array}{c} \text{CH}_2 - \text{CH}_2 \\ \text{N} \end{array} \qquad \begin{array}{c} \text{Me} \\ \text{N} \\ \text{N} \end{array}$$

### IT 234772-64-6

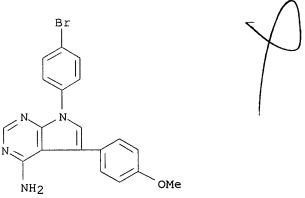
RL: BAC (Biological activity or effector, except adverse); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (inhibitor of tyrosine kinase Src suppresses phosphorylation of its major cellular substrates and reduces bone resorption in vitro and in rodent models in vivo)

RN 234772-64-6 CAPLUS

CN 4-Piperidinol, 1-[2-[4-[4-amino-5-(3-methoxyphenyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl]phenyl]ethyl]- (9CI) (CA INDEX NAME)

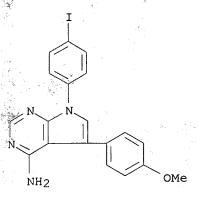
### 09/399,083

ANSWER 3 OF 10 CAPLUS COPYRIGHT 2000 ACS L6 1999:51036 CAPLUS AN DN 130:196617 Synthesis of 7H-Tetrazolo[1,5-c]pyrrolo[3,2-e]pyrimidines and their ΤI reductive ring cleavage to 4-aminopyrrolo[2,3-d]pyrimidines Dave, Chaitanya G.; Shah, Rina D. ΑU Organic Syntheses Laboratory, M. G. Science Institute, Ahmedabad, 300 CS 009, J. Heterocycl. Chem. (1998), 35(6), 1295-1300 SO CODEN: JHTCAD; ISSN: 0022-152X PΒ HeteroCorporation DTJournal English LΑ Some new 7,9-disubstituted 7H-tetrazolo[1,5-c]pyrrolo[3,2-e]pyrimidines AΒ (I; R = H, MeO, Cl; R1 = MeO, Br, I, Me) have been synthesized either by diazotization of 4-hydrazino-7H-pyrrolo[2,3-d]pyrimidines (II; same R, R1; R2 = NHNH2), obtained by hydrazinolysis of II (R2 = Cl) or via a substitution reaction between II (R2 = C1) and sodium azide. 5,7-Disubstituted 7H-pyrrolo[2,3-d]pyrimidin-4(3H)-ones were obtained by cyclocondensation of 1,4-disubstituted 2-amino-3-cyanopyrroles with formic acid; subsequent chlorination using phosphorus oxychloride afforded II (R2 = Cl). A novel route to II (R2 = NH2) via reductive ring cleavage of I has been reported. 121405-32-1P 121405-33-2P IT RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of 7H-tetrazolo[1,5-c]pyrrolo[3,2-e]pyrimidines and their reductive ring cleavage to 4-aminopyrrolo[2,3-d]pyrimidines) 121405-32-1 CAPLUS RN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-(4-bromophenyl)-5-(4-methoxyphenyl)-(9CI) (CA INDEX NAME)



RN 121405-33-2 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-(4-iodophenyl)-5-(4-methoxyphenyl)(9CI) (CA INDEX NAME)





Page 12

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```
ANSWER 4 OF 10 CAPLUS COPYRIGHT 2000 ACS
1.6
     1998:640260 CAPLUS
AN
DN
     129:275922
     Preparation of pyrrolo[2,3-d]pyrimidines as tyrosine kinase inhibitors
ΤI
     Calderwood, David John; Johnston, David Norman; Rafferty, Paul; Twigger,
IN
     Helen Louise; Munschauer, Rainer; Arnold, Lee
    Knoll A.-G., Germany
PA
     PCT Int. Appl., 72 pp.
SO
     CODEN: PIXXD2
דת
     Patent
    English
LΑ
FAN.CNT 1
     PATENT NO.
                                           APPLICATION NO.
                                                            DATE
                     KIND DATE
    WO 9841525 A1 19980924
                                           _____
                                        WO 1998-EP1357
                                                            19980309
PT
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             LV, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TR, UA, US, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM
         RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT,
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    AU 9868293
                      A1
                            19981012
                                           AU 1998-68293
                                                            19980309
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                                                            19980309
     EP 970084
                      A1
                            20000112
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE,
             SI, FI, RO
                                                            19990917
                            19990917
                                         NO 1999-4509
     NO 9904509
                      Α
                      19970319
PRAI US 1997-40836
     WO 1998-EP1357
                     19980309
     MARPAT 129:275922
OS
     The title compds. [I; R1 = H, 2-phenyl-1,3-dioxan-5-yl, C1-6 alkyl, etc.;
AΒ
     R2 = H, C1-6 alkyl, C3-8 cycloalkyl, etc.; R3 = (un)substituted II (A =
     NH, O, NHSO2, etc.; R5 = (un) substituted Ph, and, addnl., when A is
absent
     R5 = phthalimido optionally substituted by halo, (un) substituted
     pyrazolylamino)], useful in treating proliferative diseases and disorders
     of the immune system in mammals (no data), were prepd. Thus, heating a
     mixt. of 2-amino-3-cyano-4-(4-phenoxyphenyl)-1-tert-butylpyrrole (prepn.
     described), formamide and 4-dimethylaminopyridine at 180.degree. for 6 h
     afforded I [R1 = tBu; R2 = H; R3 = 4-(PhO)C6H4].
     213743-29-4P 213743-31-8P 213743-36-3P
ΤT
     213743-38-5P 213743-44-3P 213743-46-5P
     213743-52-3P 213743-74-9P 213743-84-1P
     213743-90-9P 213743-94-3P 213744-00-4P
     213744-08-2P 213744-10-6P 213744-26-4P
     RL: BAC (Biological activity or effector, except adverse); RCT
(Reactant);
     SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological
     study); PREP (Preparation); USES (Uses)
        (prepn. of pyrrolo[2,3-d]pyrimidines as tyrosine kinase inhibitors)
     213743-29-4 CAPLUS
RN
     7H-Pyrrolo[2,3-d] pyrimidin-4-amine, 7-(1,1-dimethylethyl)-5-(4-dimethylethyl)
CN
     phenoxyphenyl) - (9CI) (CA INDEX NAME)
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RN 213743-31-8 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-cyclopentyl-5-(4-phenoxyphenyl)-(9CI) (CA INDEX NAME)

RN 213743-36-3 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-(1,1-dimethylethyl)-5-[4-(phenylthio)phenyl]- (9CI) (CA INDEX NAME)

RN 213743-38-5 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-(1,1-dimethylethyl)-5-[4-(4-methoxyphenoxy)phenyl]- (9CI) (CA INDEX NAME)

RN 213743-44-3 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-(1-methylethyl)-5-[4-(2-nitrophenoxy)phenyl]- (9CI) (CA INDEX NAME)

RN 213743-46-5 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 5-[4-(2-aminophenoxy)phenyl]-7-(1-methylethyl)- (9CI) (CA INDEX NAME)

RN 213743-52-3 CAPLUS

CN Acetamide, N-[3-[4-[4-amino-7-(1,1-dimethylethyl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]phenoxy]phenyl]- (9CI) (CA INDEX NAME)

RN 213743-74-9 CAPLUS

CN 2-Cyclopenten-1-ol, 4-[4-amino-5-(4-phenoxyphenyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl]- (9CI) (CA INDEX NAME)

RN 213743-84-1 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 5-(4-phenoxyphenyl)-7-(2-phenyl-1,3-dioxan-5-yl)- (9CI) (CA INDEX NAME)

RN 213743-90-9 CAPLUS

CN Benzamide,

N-[4-(4-amino-7-cyclopentyl-7H-pyrrolo[2,3-d]pyrimidin-5-yl)-2-methoxyphenyl]- (9CI) (CA INDEX NAME)

RN 213743-94-3 CAPLUS
CN Benzenesulfonamide,
N-[4-(4-amino-7-cyclopentyl-7H-pyrrolo[2,3-d]pyrimidin5-yl)-2-methoxyphenyl]- (9CI) (CA INDEX NAME)

RN 213744-00-4 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-cyclopentyl-5-[4-(2-methoxyphenoxy)phenyl]- (9CI) (CA INDEX NAME)

RN 213744-08-2 CAPLUS
CN 1H-Pyrrolo[2,3-d]pyrimidin-4-amine, 5-(4-phenoxyphenyl)-,
monohydrobromide

# (9CI) (CA INDEX NAME)

## • HBr

RN 213744-10-6 CAPLUS CN 1H-Pyrrolo[2,3-d]pyrimidin-4-amine, 5-(4-phenoxyphenyl)- (9CI) (CA INDEX NAME)

RN 213744-26-4 CAPLUS
CN Benzenesulfonamide,
N-[4-(4-amino-7-cyclopentyl-7H-pyrrolo[2,3-d]pyrimidin5-yl)-2-methoxyphenyl]-4-(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)

IT 213743-30-7P 213743-34-1P 213743-40-9P 213743-42-1P 213743-48-7P 213743-50-1P 213743-54-5P 213743-56-7P 213743-58-9P 213743-66-9P 213743-62-5P 213743-64-7P 213743-72-7P 213743-76-1P 213743-78-3P 213743-80-7P 213743-82-9P 213743-86-3P 213743-88-5P 213743-92-1P 213743-96-5P

RN 213743-34-1 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-(2,2-dimethylpropyl)-5-(4-phenoxyphenyl)- (9CI) (CA INDEX NAME)

RN 213743-40-9 CAPLUS
CN Benzamide, N-[4-[4-amino-7-(1-methylethyl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]phenyl]- (9CI) (CA INDEX NAME)

RN 213743-42-1 CAPLUS CN Acetamide, N-[4-[4-[4-amino-7-(1,1-dimethylethyl)-7H-pyrrolo[2,3d]pyrimidin-5-yl]phenoxy]phenyl]- (9CI) (CA INDEX NAME)

RN 213743-48-7 CAPLUS

CN Acetamide,

N-[2-[4-[4-amino-7-(1-methylethyl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]phenoxy]phenyl]- (9CI) (CA INDEX NAME)

RN 213743-50-1 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 5-[4-(4-aminophenoxy)phenyl]-7-(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)

RN 213743-54-5 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 5-[4-(3-aminophenoxy)phenyl]-7-(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)

RN 213743-56-7 CAPLUS

CN Acetamide, N-[4-[4-[4-amino-7-(1,1-dimethylethyl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]phenoxy]phenyl]-N-methyl- (9CI) (CA INDEX NAME)

RN 213743-58-9 CAPLUS

CN Benzenesulfonamide, N-[4-[4-amino-7-(1-methylethyl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]phenyl]- (9CI) (CA INDEX NAME)

RN 213743-60-3 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 6-chloro-7-(1,1-dimethylethyl)-5-(4-phenoxyphenyl)- (9CI) (CA INDEX NAME)

RN 213743-62-5 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-(1,1-dimethylethyl)-5-[4-(phenylsulfinyl)phenyl]- (9CI) (CA INDEX NAME)

RN 213743-64-7 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-(1,1-dimethylethyl)-5-[4-(phenylsulfonyl)phenyl]- (9CI) (CA INDEX NAME)

RN 213743-66-9 CAPLUS

CN Phenol, 4-[4-[4-amino-7-(1,1-dimethylethyl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]phenoxy]- (9CI) (CA INDEX NAME)

RN 213743-68-1 CAPLUS

CN Phenol, 4-[4-(4-amino-1H-pyrrolo[2,3-d]pyrimidin-5-yl)phenoxy]- (9CI)

(CA

INDEX NAME)

RN 213743-70-5 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine-7-ethanol, 4-amino-5-(4-phenoxyphenyl)- (9CI)
(CA INDEX NAME)

RN 213743-72-7 CAPLUS
CN Cyclopentanol,
2-[4-amino-5-(4-phenoxyphenyl)-7H-pyrrolo[2,3-d]pyrimidin-7yl]- (9CI) (CA INDEX NAME)

RN 213743-76-1 CAPLUS
CN Cyclopentanol,
3-[4-amino-5-(4-phenoxyphenyl)-7H-pyrrolo[2,3-d]pyrimidin-7yl]- (9CI) (CA INDEX NAME)

213743-78-3 CAPLUS RN

1,2,3-Cyclopentanetriol, 4-[4-amino-5-(4-phenoxyphenyl)-7H-pyrrolo[2,3-CN d]pyrimidin-7-y1]- (9CI) (CA INDEX NAME)

213743-80-7 CAPLUS RN

7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-cyclopentyl-5-(2-phenoxyphenyl)-CN (9CI) (CA INDEX NAME)

213743-82-9 CAPLUS RN

7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-cyclopentyl-5-(3-phenoxyphenyl)-CN (9CI) (CA INDEX NAME)

RN 213743-86-3 CAPLUS
CN 1,3-Propanediol,
2-[4-amino-5-(4-phenoxyphenyl)-7H-pyrrolo[2,3-d]pyrimidin7-yl]- (9CI) (CA INDEX NAME)

RN 213743-88-5 CAPLUS CN 1,2-Propanediol, 3-[4-amino-5-(4-phenoxyphenyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl]- (9CI) (CA INDEX NAME)

RN 213743-92-1 CAPLUS

CN Benzamide,

N-[4-(4-amino-7-cyclopentyl-7H-pyrrolo[2,3-d]pyrimidin-5-yl)-2-hydroxyphenyl]- (9CI) (CA INDEX NAME)

RN 213743-96-5 CAPLUS
CN Benzenesulfonamide,
N-[4-(4-amino-7-cyclopentyl-7H-pyrrolo[2,3-d]pyrimidin5-yl)-2-hydroxyphenyl]- (9CI) (CA INDEX NAME)

RN 213743-98-7 CAPLUS
CN Benzenesulfonamide,
N-[4-(4-amino-7-cyclopentyl-7H-pyrrolo[2,3-d]pyrimidin5-yl)-2-hydroxyphenyl]-4-(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)

RN 213744-02-6 CAPLUS

CN Phenol, 2-[4-(4-amino-7-cyclopentyl-7H-pyrrolo[2,3-d]pyrimidin-5-yl)phenoxy]- (9CI) (CA INDEX NAME)

RN 213744-04-8 CAPLUS

CN Benzamide,

N-[4-(4-amino-7-cyclopentyl-7H-pyrrolo[2,3-d]pyrimidin-5-yl)-2-hydroxyphenyl]-4-chloro- (9CI) (CA INDEX NAME)

RN 213744-06-0 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 6-chloro-7-cyclopentyl-5-(4-phenoxyphenyl)- (9CI) (CA INDEX NAME)

RN 213744-12-8 CAPLUS

CN Acetamide,

N-[2-[4-[4-amino-7-(1-methylethyl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]phenoxy]-5-nitrophenyl]- (9CI) (CA INDEX NAME)

RN 213744-14-0 CAPLUS

CN Benzoic acid,

5-[4-[4-amino-7-(1-methylethyl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]phenoxy]-2-nitro-(9CI) (CA INDEX NAME)

RN 213744-16-2 CAPLUS

CN Benzoic acid,

2-[4-[4-amino-7-(1-methylethyl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]phenoxy]-5-nitro-(9CI) (CA INDEX NAME)

RN 213744-18-4 CAPLUS

CN 7H-Pyrrolo[2, 3-d]pyrimidin-4-amine,

5-[4-(3-methoxy-4-nitrophenoxy)phenyl]-

7-(1-methylethyl)- (9CI) (CA INDEX NAME)

RN 213744-20-8 CAPLUS
CN Benzoic acid,
4-[4-[4-amino-7-(1-methylethyl)-7H-pyrrolo[2,3-d]pyrimidin-5yl]phenoxy]-3-nitro-, methyl ester (9CI) (CA INDEX NAME)

RN 213744-22-0 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine,
5-[4-(5-chloro-2-nitrophenoxy)phenyl]7-(1-methylethyl)- (9CI) (CA INDEX NAME)

RN 213744-24-2 CAPLUS
CN Propanamide,

N-[2-[4-[4-amino-7-(1-methylethyl)-7H-pyrrolo[2,3-d]pyrimidin-5-yl]phenoxy]-5-nitrophenyl]-2,2-dimethyl- (9CI) (CA INDEX NAME)

RN

213744-29-7 CAPLUS Propanamide, N-[2-[4-(4-amino-1H-pyrrolo[2,3-d]pyrimidin-5-yl)phenoxy]-5-CN nitrophenyl]-2,2-dimethyl- (9CI) (CA INDEX NAME)

ΙT 213744-87-7P

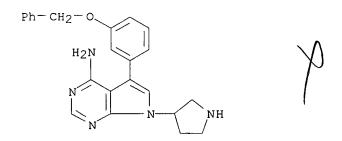
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (prepn. of pyrrolo[2,3-d]pyrimidines as tyrosine kinase inhibitors) RN 213744-87-7 CAPLUS 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, CN 5-(4-methoxyphenyl)-7-(1-methylethyl)-(9CI) (CA INDEX NAME)

```
ANSWER 5 OF 10 CAPLUS COPYRIGHT 2000 ACS
L6
     1997:640667 CAPLUS
ΑN
DN
     127:318974
TI
     Preparation of 7-heterocyclylpyrrolo[2,3-d]pyrimidines and analogs as
     protein tyrosine kinase pp60c-src inhibitors
IN
     Altmann, Eva
     Novartis A.-G., Switz.; Altmann, Eva
PΑ
     PCT Int. Appl., 66 pp.
     CODEN: PIXXD2
DT
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     German
LA
FAN.CNT 1
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                                            APPLICATION NO.
                                                             DATE
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             TJ, TM
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             ML, MR, NE, SN, TD, TG
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                       A1
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     NO 9804199
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                                                              19980911
PRAI CH 1996-694
                      19960315
                     19970305
     WO 1997-EP1095
     MARPAT 127:318974
OS
AΒ
     Title compds. [I; R = R5Z(CH2)0-4; R1 = aryl; R2,R3 = H, halo, alkyl; R5
     H, alkyl, alkanoyl, alkoxycarbonyl, etc.; Z = (un)substituted
     pyrrolidine-1,2- or 1,3-diyl, -piperidine-1,2-, -1,3-, or -1,4-diyl] were
     prepd. as protein tyrosine kinase pp60c-src inhibitors (no data). Thus,
     PhCOCH2NHAc was cyclocondensed with CH2(CN)2 and the product condensed
     with HC(OEt)3 and NH3 to give N-(3-cyano-4-phenyl-2-pyrrolyl)formamidine
     which was cyclized to give, after deprotection, I (R1 = Ph, R2 = R3 =
     H) (II; R = H) which was condensed with Me
(2R, 4R)-1-tert-butoxycarbonyl-4-
     tosyloxypyrrolidine-2-carboxylate to give, after deprotection, II [R =
     (2R, 4S) -2-ethoxycarbonyl-4-pyrrolidinyl].
TΤ
     197525-41-0P 197525-42-1P 197525-44-3P
     197525-45-4P 197525-49-8P 197525-50-1P
     197525-53-4P 197525-54-5P 197525-55-6P
     197525-56-7P 197525-57-8P
     RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic
     preparation); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (prepn. of 7-heterocyclylpyrrolo[2,3-d]pyrimidines and analogs as
        protein tyrosine kinase pp60c-src inhibitors)
     197525-41-0 CAPLUS
RN
     7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 5-[4-(phenylmethoxy)phenyl]-7-(3-
CN
```

pyrrolidinyl)-, dihydrochloride (9CI) (CA INDEX NAME)

## ●2 HCl

RN 197525-42-1 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 5-[3-(phenylmethoxy)phenyl]-7-(3-pyrrolidinyl)-, dihydrochloride (9CI) (CA INDEX NAME)

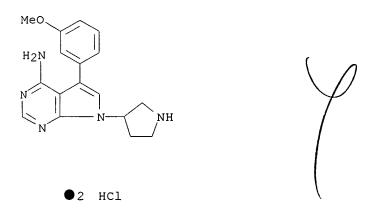


# •2 HCl

RN 197525-44-3 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine,
5-(4-methoxyphenyl)-7-(3-pyrrolidinyl), dihydrochloride (9CI) (CA INDEX NAME)

## •2 HCl

RN 197525-45-4 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine,
5-(3-methoxyphenyl)-7-(3-pyrrolidinyl), dihydrochloride (9CI) (CA INDEX NAME)



RN 197525-49-8 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine,
5-(4-methoxyphenyl)-7-(4-piperidinyl)(9CI) (CA INDEX NAME)

RN 197525-50-1 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine,
5-(3-methoxyphenyl)-7-(4-piperidinyl)(9CI) (CA INDEX NAME)

RN 197525-53-4 CAPLUS
CN 1-Piperidineethanol, 4-[4-amino-5-(3-methoxyphenyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl]- (9CI) (CA INDEX NAME)

RN 197525-54-5 CAPLUS

CN 1-Piperidineacetic acid, 4-[4-amino-5-(3-methoxyphenyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl]-, methyl ester (9CI) (CA INDEX NAME)

RN 197525-55-6 CAPLUS

CN 1-Piperidineacetamide, 4-[4-amino-5-(3-methoxyphenyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O \\ H_2N-C-CH_2 \\ \hline \\ N \\ \hline \\ NH_2 \\ \end{array}$$

RN 197525-56-7 CAPLUS

CN 1-Piperidineacetamide, 4-[4-amino-5-(3-methoxyphenyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl]-N,N-dimethyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
O \\
Me_2N-C-CH_2\\
\hline
N\\
N\\
N\\
NH_2
\end{array}$$
OMe

RN 197525-57-8 CAPLUS

CN 1-Piperidineacetic acid, 4-[4-amino-5-(3-methoxyphenyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl]- (9CI) (CA INDEX NAME)

IT 121405-37-6P 194787-34-3P 194787-35-4P 194787-36-5P 197525-66-9P 197525-67-0P 197525-68-1P 197525-83-0P 197525-84-1P 197525-86-3P 197525-87-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (prepn. of 7-heterocyclylpyrrolo[2,3-d]pyrimidines and analogs as protein tyrosine kinase pp60c-src inhibitors)

RN 121405-37-6 CAPLUS

CN 1H-Pyrrolo[2,3-d]pyrimidin-4-amine, 5-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

194787-34-3 CAPLUS RN

1H-Pyrrolo[2,3-d]pyrimidin-4-amine, 5-(3-methoxyphenyl)- (9CI) (CA INDEX CN NAME)

194787-35-4 CAPLUS RN

1H-Pyrrolo[2,3-d]pyrimidin-4-amine, 5-[4-(phenylmethoxy)phenyl]- (9CI) CN (CA INDEX NAME)

194787-36-5 CAPLUS

1H-Pyrrolo[2,3-d]pyrimidin-4-amine, 5-[3-(phenylmethoxy)phenyl]- (9CI) CN (CA INDEX NAME)

197525-66-9 CAPLUS RN

1,2-Pyrrolidinedicarboxylic acid, 4-[4-amino-5-[4-(phenylmethoxy)phenyl]-7H-pyrrolo[2,3-d]pyrimidin-7-yl]-, 1-(1,1-dimethylethyl) 2-ethyl ester,CN (2R-trans) - (9CI) (CA INDEX NAME)

### Absolute stereochemistry.

RN 197525-67-0 CAPLUS

CN 1-Pyrrolidinecarboxylic acid, 4-[4-amino-5-[4-(phenylmethoxy)phenyl]-7H-pyrrolo[2,3-d]pyrimidin-7-yl]-2-(hydroxymethyl)-, 1,1-dimethylethyl ester,

(2R-trans) - (9CI) (CA INDEX NAME)

## Absolute stereochemistry.

RN 197525-68-1 CAPLUS

CN 2-Pyrrolidinemethanol, 4-[4-amino-5-[4-(phenylmethoxy)phenyl]-7H-pyrrolo[2,3-d]pyrimidin-7-yl]-, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 197525-83-0 CAPLUS

CN 1-Pyrrolidinecarboxylic acid, 3-[4-amino-5-(4-methoxyphenyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

RN 197525-84-1 CAPLUS

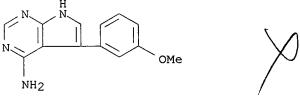
CN 1-Pyrrolidinecarboxylic acid, 3-[4-amino-5-(3-methoxyphenyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

RN 197525-86-3 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[4-amino-5-[3-(phenylmethoxy)phenyl]-7H-

pyrrolo[2,3-d]pyrimidin-7-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

```
ANSWER 6 OF 10 CAPLUS COPYRIGHT 2000 ACS
L6
ΑN
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TI
    Altmann, Eva; Missbach, Martin; Widler, Leo
IN
    Novartis A.-G., Switz.; Altmann, Eva; Missbach, Martin; Widler, Leo
PΑ
     PCT Int. Appl., 64 pp.
SO
     CODEN: PIXXD2
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                     19960306
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AB
     Approx. 50 protein tyrosine kinase inhibiting title compds. I [R = H,
     alkyl, hydroxyalkyl, hydroxy(aryl)alkyl, hydroxycycloalkyl,
     hydroxycycloalkylalkyl, chloroalkyl, substituted-aminoalkyl, etc.; R1 =
     Ph, substituted-phenyl} were prepd. E.g., I (R = H, R1 = Ph) was prepd.
     from phenacylamine-HCl and Ac20 in 4 steps via
2-amino-4-phenyl-1H-pyrrole-
     3-carbonitrile and N-(3-cyano-4-phenyl-1H-pyrrol-2-yl) formamidine.
     194787-34-3P 194787-35-4P 196964-56-4P
IT
     196964-57-5P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
        (prepn. of protein tyrosine kinase inhibiting pyrrolopyrimidines)
     194787-34-3 CAPLUS
RN
     1H-Pyrrolo[2,3-d]pyrimidin-4-amine, 5-(3-methoxyphenyl)- (9CI) (CA INDEX
CN
     NAME)
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RN 194787-35-4 CAPLUS
CN 1H-Pyrrolo[2,3-d]pyrimidin-4-amine, 5-[4-(phenylmethoxy)phenyl]- (9CI)
(CA INDEX NAME)

jás nat zero.

196964-56-4 CAPLUS 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-(2-chloroethyl)-5-(3-methoxyphenyl)-(9CI) (CA INDEX NAME)

196964-57-5 CAPLUS 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-(3-chloropropyl)-5-(3-methoxyphenyl)-(9CI) (CA INDEX NAME)

121405-37-6P 194787-36-5P 196963-91-4P ΙT 196964-10-0P 196964-14-4P 196964-19-9P 196964-28-0P 196964-29-1P 196964-30-4P 196964-31-5P 196964-32-6P 196964-64-4P RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of protein tyrosine kinase inhibiting pyrrolopyrimidines) 121405-37-6 CAPLUS RN 1H-Pyrrolo[2,3-d]pyrimidin-4-amine, 5-(4-methoxyphenyl)- (9CI) (CA INDEX CN NAME)

RN 194787-36-5 CAPLUS
CN 1H-Pyrrolo[2,3-d]pyrimidin-4-amine, 5-[3-(phenylmethoxy)phenyl]- (9CI)
(CA INDEX NAME)

RN 196963-91-4 CAPLUS CN 1,3-Propanediol, 2-[[4-amino-5-(3-methoxyphenyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl]methyl]- (9CI) (CA INDEX NAME)

RN 196964-10-0 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine-7-ethanol,
4-amino-5-(3-methoxyphenyl)-.beta.[(4-methoxyphenyl)methyl]- (9CI) (CA INDEX NAME)

Page 43

$$\begin{array}{c} \text{MeO} \\ \text{H}_2\text{N} \\ \text{N} \\ \text{N} \\ \text{CH}_2\text{-OH} \\ \text{CH}_2\text{-OH} \\ \text{OMe} \\ \end{array}$$

RN 196964-14-4 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine,
5-(3-methoxyphenyl)-7-(1-phenylethyl), (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 196964-19-9 CAPLUS CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 5-(3-methoxyphenyl)-7-(1-methylethyl)-(9CI) (CA INDEX NAME)

RN 196964-28-0 CAPLUS
CN Ethanol, 2-[[2-[4-amino-5-(3-methoxyphenyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl]ethyl]amino]-, dihydrochloride (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{HO-CH}_2\text{-CH}_2\text{-NH-CH}_2\text{-CH}_2\\ \hline \\ \text{N}\\ \text{NH}_2 \end{array} \hspace{-0.5cm} \text{OMe}$$

●2 HCl

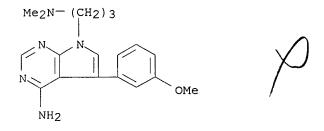
RN 196964-29-1 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 5-(3-methoxyphenyl)-7-[2-(4-methyl-1-piperazinyl)ethyl]- (9CI) (CA INDEX NAME)

RN 196964-30-4 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 5-(3-methoxyphenyl)-7-[3-(4-methyl-1-piperazinyl)propyl]- (9CI) (CA INDEX NAME)

RN 196964-31-5 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine-7-propanamine,
4-amino-5-(3-methoxyphenyl)-N,Ndimethyl- (9CI) (CA INDEX NAME)



RN 196964-32-6 CAPLUS
CN 4-Piperidinol, 1-[3-[4-amino-5-(3-methoxyphenyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl]propyl]- (9CI) (CA INDEX NAME)

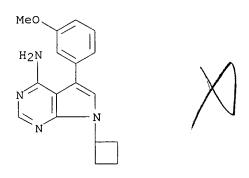
RN 196964-64-4 CAPLUS
CN 1,3-Propanediol, 2-[[4-amino-5-(3-methoxyphenyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl]methyl]-, monohydrochloride (9CI) (CA INDEX NAME)

HCl

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ANSWER 7 OF 10 CAPLUS COPYRIGHT 2000 ACS
L6
ΑN
    1997:533648 CAPLUS
    127:220666
DN
    Preparation of 4-aminopyrrolo[2,3-d]pyrimidines as tyrosine kinase
TΙ
    inhibitors
    Altmann, Eva; Widler, Leo; Missbach, Martin
IN
    Novartis A.-G, Switz.; Altmann, Eva; Widler, Leo; Missbach, Martin
PΑ
    PCT Int. Appl., 48 pp.
SO
    CODEN: PIXXD2
DТ
    Patent
    English
LA
FAN.CNT 1
                  KIND DATE
                                         APPLICATION NO. DATE
    PATENT NO.
     _____
                                           _____
                                      wo 1997-EP350 19970127
    WO 9728161 A1 19970807
PΤ
        W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG,
             SI, SK, TR, TT, UA, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ,
TM
        RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,
             IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML,
             MR, NE, SN, TD, TG
                     A1 19970822
                                         AU 1997-15951
                                                            19970127
    AU 9715951
PRAI CH 1996-257
                      19960201
                      19970127
    WO 1997-EP350
    MARPAT 127:220666
OS
    Title compds. [I; R1 = aryl; R2,R4 = H, halo, alkyl; R3 = (un)substituted
AB
     cycloalk(en)yl] were prepd. as tyrosine kinase inhibitors (no data).
     Thus, PhCOCH2NH2 was N-acetylated and the product cyclocondensed with
     CH2(CN)2 to give 2-amino-3-cyano-4-phenylpyrrole which was condensed with
     HC(OEt)3 and NH3 and the product cyclized to give I (R1 = Ph, R2 = R4 =
     H)(II; R3 = H). The latter was condensed with cyclopentadiene
monoepoxide
     to give II (R3 = 3-hydroxy-2-cyclopentenyl).
     194787-38-7P 194787-74-1P 194787-80-9P
     194787-83-2P 194787-84-3P 194787-86-5P
     194787-87-6P
     RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic
     preparation); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (prepn. of 4-aminopyrrolo[2,3-d]pyrimidines as tyrosine kinase
        inhibitors)
RN
     194787-38-7 CAPLUS
     2-Cyclopenten-1-ol,
CN
4-[4-amino-5-[4-(phenylmethoxy)phenyl]-7H-pyrrolo[2,3-
     d]pyrimidin-7-yl]- (9CI) (CA INDEX NAME)
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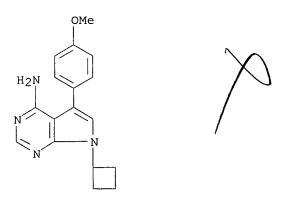
RN 194787-74-1 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-cyclobutyl-5-(3-methoxyphenyl)-(9CI) (CA INDEX NAME)



RN 194787-80-9 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-cyclobutyl-5-(4-methoxyphenyl)-(9CI) (CA INDEX NAME)



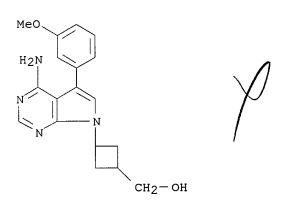
RN 194787-83-2 CAPLUS

CN Cyclobutanecarboxylic acid,

3-[4-amino-5-(3-methoxyphenyl)-7H-pyrrolo[2,3-

d]pyrimidin-7-yl]-, methyl ester (9CI) (CA INDEX NAME)

RN 194787-84-3 CAPLUS
CN Cyclobutanemethanol, 3-[4-amino-5-(3-methoxyphenyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl]- (9CI) (CA INDEX NAME)



RN 194787-86-5 CAPLUS
CN Cyclohexanol,
4-[4-amino-5-(3-methoxyphenyl)-7H-pyrrolo[2,3-d]pyrimidin-7yl]- (9CI) (CA INDEX NAME)

RN 194787-87-6 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-cyclohexyl-5-(3-methoxyphenyl)-(9CI) (CA INDEX NAME)

IT 121405-37-6P 194787-34-3P 194787-35-4P

194787-36-5P 194788-04-0P 194788-05-1P

194788-06-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (prepn. of 4-aminopyrrolo[2,3-d]pyrimidines as tyrosine kinase inhibitors)

RN 121405-37-6 CAPLUS

CN 1H-Pyrrolo[2,3-d]pyrimidin-4-amine, 5-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

RN 194787-34-3 CAPLUS

CN 1H-Pyrrolo[2,3-d]pyrimidin-4-amine, 5-(3-methoxyphenyl)- (9CI) (CA INDEX

NAME)

RN 194787-35-4 CAPLUS

CN 1H-Pyrrolo[2,3-d]pyrimidin-4-amine, 5-[4-(phenylmethoxy)phenyl]- (9CI) (CA INDEX NAME)

RN 194787-36-5 CAPLUS

CN 1H-Pyrrolo[2,3-d]pyrimidin-4-amine, 5-[3-(phenylmethoxy)phenyl]- (9CI) (CA INDEX NAME)

RN 194788-04-0 CAPLUS

CN Cyclobutanecarboxylic acid, 3-[4-amino-5-[3-(phenylmethoxy)phenyl]-7H-pyrrolo[2,3-d]pyrimidin-7-yl]-, ethyl ester (9CI) (CA INDEX NAME)

RN 194788-05-1 CAPLUS
CN Cyclobutanemethanol,
3-[4-amino-5-[3-(phenylmethoxy)phenyl]-7H-pyrrolo[2,3-d]pyrimidin-7-yl]-, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.

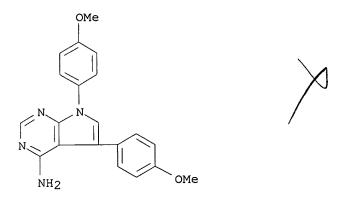
RN 194788-06-2 CAPLUS
CN Cyclobutanemethanol,
3-[4-amino-5-[3-(phenylmethoxy)phenyl]-7H-pyrrolo[2,3-d]pyrimidin-7-yl]-, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Page 54

## 09/399,083

ANSWER 8 OF 10 CAPLUS COPYRIGHT 2000 ACS 1.6 1997:411066 CAPLUS AN 127:90501 DN 4-aminopyrrolo[2,3-d]pyrimidines as tyrosine kinase inhibitors ΤI Dow, Robert L.; Koch, Kevin IN Pfizer Inc., USA PΑ U.S., 5 pp. SO CODEN: USXXAM Patent DТ English LA FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE \_\_\_\_\_ ----US 5639757 19970617 US 1995-448248 19950523 Α PΙ MARPAT 127:90501 OS Certain 4-aminopyrrolo[2,3-d]pyrimidine compds., and their AB pharmaceutically-acceptable salts (Markush structure given), are inhibitors of tyrosine kinase enzymes, and are useful for immunoregulation and for the treatment of cancer, angiogenesis and atherosclerosis. Inhibitory activity of 15 title compds. at  $1 \times 10-4-10-6$  M concn. was tested on enzyme pp60src, a tyrosine-specific phosphokinase assocd. With the inner surface of the plasma membrane. ΙT 121405-31-0 121405-32-1 121405-33-2 RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (aminopyrrolopyrimidines as tyrosine kinase inhibitors) 121405-31-0 CAPLUS RN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 5,7-bis(4-methoxyphenyl)- (9CI) (CA CN INDEX NAME)



RN 121405-32-1 CAPLUS CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-(4-bromophenyl)-5-(4-methoxyphenyl)-(9CI) (CA INDEX NAME)

RN 121405-33-2 CAPLUS CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-(4-iodophenyl)-5-(4-methoxyphenyl)-(9CI) (CA INDEX NAME)

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ANSWER 9 OF 10 CAPLUS COPYRIGHT 2000 ACS
L6
     1996:443907 CAPLUS
ΑN
DN
     125:86670
     Preparation of 4-aminopyrrolo[2,3-d]pyrimidines as inhibitors of the
TI
     protein tyrosine kinase pp60c-src
    Missbach, Martin
IN
     Ciba-Geigy A.-G., Switz.
PA
SO
     PCT Int. Appl., 77 pp.
     CODEN: PIXXD2
DT
     Patent
     English
LΑ
FAN.CNT 1
     PATENT NO.
                 KIND DATE
                                          APPLICATION NO. DATE
     _____
                     ____
                                          _____
                                     WO 1995-EP3536 19950908
     WO 9610028 A1 19960404
PΤ
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            RU, SG, SI, SK, TJ, TM, TT, UA, US, UZ, VN
         RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT,
             LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE,
             SN, TD, TG
                                         CA 1995-2200210 19950908
     CA 2200210
                            19960404
                      AΑ
     AU 9535643
                            19960419
                                          AU 1995-35643
                                                            19950908
                      A1
     AU 694801
                      B2
                           19980730
                           19970716
                                          EP 1995-932693 19950908
     EP 783505
                      A1
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT,
SE
                                           CN 1995-196308
                                                            19950908
                           19971105
     CN 1164234
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     CN 1046731
                     В
                           19991124
                                          HU 1997-1333
                                                            19950908
     HU 76785
                     A2
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                                                            19950908
                                          BR 1995-9048
     BR 9509048
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                     A 19990209
     US 5869485
                                          NO 1997-1342
                                                           19970321
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     NO 9701342
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                            19970514
                                          FI 1997-1225
                                                           19970324
     FI 9701225
                     Α
PRAI CH 1994-2953
                     19940929
     WO 1995-EP3536 19950908
     CASREACT 125:86670; MARPAT 125:86670
     The title compds. [I; R1, R3 = (substituted) aryl; R2 = H, alkyl, halo],
     useful for the treatment of osteoporosis, breast cancer and
cardiovascular
     disorders, e.g. thrombosis, were prepd. by e.g. treatment of substituted
     2-\text{amino}-3-\text{cyano-pyrrole} with (EtO)3CH followed by treatment of II (X =
     EtO) with NH3/EtOH and cyclization of II (X = NH2) with NH3/EtOH at
     130.degree. in an autoclave. Tablets formulations contg. I are given.
In
     general, compds. I showed IC50 of 0.001-10 .mu.M against protein tyrosine
     kinase pp60c-src.
     178909-50-7P
IT
     RL: BAC (Biological activity or effector, except adverse); RCT
(Reactant);
     SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological
     study); PREP (Preparation); USES (Uses)
        (prepn. of 4-aminopyrrolo[2,3-d]pyrimidines as inhibitors of the
        protein tyrosine kinase pp60c-src)
     178909-50-7 CAPLUS
RN
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Page 57

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-phenyl-5-[4-(phenylmethoxy)phenyl]-(9CI) (CA INDEX NAME)

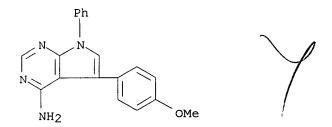
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RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of 4-aminopyrrolo[2,3-d]pyrimidines as inhibitors of the protein tyrosine kinase pp60c-src)

RN 121405-30-9 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 5-(4-methoxyphenyl)-7-phenyl- (9CI) (CA INDEX NAME)



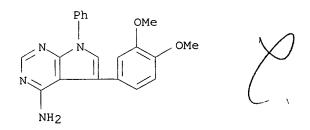
RN 178909-27-8 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 5-(3-methoxyphenyl)-7-phenyl- (9CI) (CA INDEX NAME)

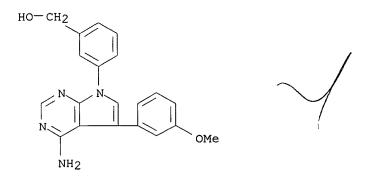
RN 178909-32-5 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 5-(3,5-dimethoxyphenyl)-7-phenyl-(9CI) (CA INDEX NAME)

RN 178909-42-7 CAPLUS CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 5-(3,4-dimethoxyphenyl)-7-phenyl-(9CI) (CA INDEX NAME)



RN 178909-46-1 CAPLUS
CN Benzenemethanol,
3-[4-amino-5-(3-methoxyphenyl)-7H-pyrrolo[2,3-d]pyrimidin7-yl]- (9CI) (CA INDEX NAME)



RN 178909-47-2 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-(1,3-benzodioxol-5-yl)-5-(3-methoxyphenyl)- (9CI) (CA INDEX NAME)

RN 178909-49-4 CAPLUS

CN Benzenemethanol, 3-[4-amino-5-(3,4-dimethoxyphenyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl]- (9CI) (CA INDEX NAME)

RN 178909-66-5 CAPLUS

CN Ethanol, 2-[3-[4-amino-5-(3-methoxyphenyl)-7H-pyrrolo[2,3-d]pyrimidin-7-yl]phenoxy]- (9CI) (CA INDEX NAME)

$$_{\rm NH_2}^{\rm NO-CH_2-CH_2-O}$$

RN 178909-84-7 CAPLUS

CN Phenol, 4-(4-amino-7-phenyl-7H-pyrrolo[2,3-d]pyrimidin-5-yl)-2-methoxy-(9CI) (CA INDEX NAME)

RN 178909-97-2 CAPLUS

CN Phenol,

4-[4-amino-7-[3-[2-(1H-imidazol-1-yl)ethoxy]phenyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxy- (9CI) (CA INDEX NAME)

MeO 
$$H_2N$$
  $O-CH_2-CH_2-N$   $N$ 

RN 178909-98-3 CAPLUS

CN Phenol,

5-[4-amino-7-[3-[2-(1H-imidazol-1-yl)ethoxy]phenyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-methoxy- (9CI) (CA INDEX NAME)

OMe HO 
$$H_2N$$
  $N$   $O-CH_2-CH_2-N$   $N$ 

RN 178910-00-4 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-[3-[2-(1H-imidazol-1-yl)ethoxy]phenyl]-5-(3-methoxyphenyl)- (9CI) (CA INDEX NAME)

yl)ethoxy]phenyl]-5-[4-(phenylmethoxy)phenyl]- (9CI) (CA INDEX NAME)

RN 178910-37-7 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-[3-(2-chloroethoxy)phenyl]-5-[4-(phenylmethoxy)phenyl]- (9CI) (CA INDEX NAME)

RN 178910-38-8 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-[4-(2-chloroethoxy)phenyl]-5-[4-(phenylmethoxy)phenyl]- (9CI) (CA INDEX NAME)

RN 178910-39-9 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-[4-[2-(1H-imidazol-1-yl)ethoxy]phenyl]-5-[4-(phenylmethoxy)phenyl]- (9CI) (CA INDEX NAME)

RN 178910-40-2 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-[3-[2-(1H-imidazol-1-yl)ethoxy]phenyl]-5-[3-(phenylmethoxy)phenyl]- (9CI) (CA INDEX NAME)

$$Ph-CH_2-O$$
 $H_2N$ 
 $N$ 
 $N$ 
 $O-CH_2-CH_2$ 
 $N$ 

RN 178910-41-3 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine,

7-[4-[2-(dimethylamino)ethoxy]phenyl]-

5-[3-(phenylmethoxy)phenyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Me}_2\text{N}-\text{CH}_2-\text{CH}_2-\text{O} \\ \hline \\ \text{N} \\ \text{N} \\ \text{N} \\ \text{NH}_2 \\ \end{array}$$

RN 178910-42-4 CAPLUS

CN Ethanol, 2-[[2-[4-[4-amino-5-[3-(phenylmethoxy)phenyl]-7H-pyrrolo[2,3-d]pyrimidin-7-yl]phenoxy]ethyl]amino]- (9CI) (CA INDEX NAME)

RN 178910-43-5 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-[3-(3-chloropropoxy)phenyl]-5-[3-(phenylmethoxy)phenyl]- (9CI) (CA INDEX NAME)

RN 178910-44-6 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-[3-[3-(1H-imidazol-1-yl)propoxy]phenyl]-5-[3-(phenylmethoxy)phenyl]- (9CI) (CA INDEX NAME)

RN 178910-45-7 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-[4-[2-(1H-imidazol-1-yl)ethoxy]phenyl]-5-[3-(phenylmethoxy)phenyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c} Ph-CH_2-O\\ \\ H_2N\\ \\ N\\ \end{array} \\ \begin{array}{c} O-CH_2-CH_2-N\\ \end{array} \\ \begin{array}{c} N\\ \\ \end{array}$$

RN 178910-46-8 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-[3-(3-chloropropoxy)phenyl]-5-[4-(phenylmethoxy)phenyl]- (9CI) (CA INDEX NAME)

RN 178910-47-9 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-[3-[3-(1H-imidazol-1-yl)propoxy]phenyl]-5-[4-(phenylmethoxy)phenyl]- (9CI) (CA INDEX NAME)

RN 178910-48-0 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-[3-(2-chloroethoxy)phenyl]-5-[3-methyl-4-(phenylmethoxy)phenyl]- (9CI) (CA INDEX NAME)

RN 178910-49-1 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-[3-[2-(1H-imidazol-1-yl)ethoxy]phenyl]-5-[3-methyl-4-(phenylmethoxy)phenyl]- (9CI) (CA INDEX NAME)

RN 178910-50-4 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-[3-(2-chloroethoxy)phenyl]-5-[3-methoxy-4-(phenylmethoxy)phenyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{C1CH}_2-\text{CH}_2-\text{O} \\ \\ \text{N} \\ \\ \text{N} \\ \\ \text{NH}_2 \end{array} \\ \begin{array}{c} \text{OMe} \\ \\ \text{O}-\text{CH}_2-\text{Ph} \\ \\ \\ \text{NH}_2 \\ \end{array}$$

RN 178910-51-5 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-[3-[2-(1H-imidazol-1-yl)ethoxy]phenyl]-5-[3-methoxy-4-(phenylmethoxy)phenyl]- (9CI) (CA INDEX NAME)

RN 178910-52-6 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-[3-(2-chloroethoxy)phenyl]-5-[4-methoxy-3-(phenylmethoxy)phenyl]- (9CI) (CA INDEX NAME)

RN 178910-53-7 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-[3-[2-(1H-imidazol-1-yl)ethoxy]phenyl]-5-[4-methoxy-3-(phenylmethoxy)phenyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{OMe} \\ \text{Ph-CH}_2-\text{O} \\ \text{H}_2\text{N} \\ \text{N} \\ \text{N} \\ \text{O-CH}_2-\text{CH}_2-\text{N} \\ \text{N} \\ \end{array}$$

RN 178910-54-8 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-[3-(2-chloroethoxy)phenyl]-5-[3,5-dimethyl-4-(phenylmethoxy)phenyl]- (9CI) (CA INDEX NAME)

RN 178910-55-9 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 5-[3,5-dimethyl-4-(phenylmethoxy)phenyl]-7-[3-[2-(1H-imidazol-1-yl)ethoxy]phenyl]- (9CI) (CA INDEX NAME)

RN 178910-56-0 CAPLUS

CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 7-[3-(2-chloroethoxy)phenyl]-5-(3-methoxyphenyl)- (9CI) (CA INDEX NAME)

## 09/399,083

- L6 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2000 ACS
- AN 1989:439290 CAPLUS
- DN 111:39290
- TI Synthesis and biological activity of pyrrolo[2,3-d]pyrimidines
- AU Dave, Chaitanya G.; Shah, P. R.; Upadhyaya, S. P.; Gandhi, T. P.; Patel, R. B.
- CS Dep. Chem., St. Xavier's Coll., Ahmedabad, 380 009, India
- SO Indian J. Chem., Sect. B (1988), 27B(8), 778-80 CODEN: IJSBDB; ISSN: 0376-4699
- DT Journal
- LA English
- OS CASREACT 111:39290
- 2-Amno-3-pyrrolecarbonitriles were treated with HCONH2 to give aminopyrrolopyrimidines I [R1 = Ph, tolyl, anisyl, halophenyl; R2 = H, or R2R3 = (CH2)4; R3 = Ph, anisyl, ClC6H4, Me, tolyl]. Most I showed bactericidal, analgesic, antiinflammatory, antihistaminic, anticholinergic, anticonvulsant, and antihypertensive activity. Also prepd., from CS2, were pyrrolopyrimidines II.
- IT 121405-30-9P
- RN 121405-30-9 CAPLUS
- CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 5-(4-methoxyphenyl)-7-phenyl- (9CI) (CA INDEX NAME)

- IT 121405-31-0P 121405-32-1P
  - RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (prepn. and pharmacol. activity of)
- RN 121405-31-0 CAPLUS
- CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine, 5,7-bis(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

RN 121405-32-1 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidin-4-amine,
7-(4-bromophenyl)-5-(4-methoxyphenyl)(9CI) (CA INDEX NAME)

RN 121405-37-6 CAPLUS
CN 1H-Pyrrolo[2,3-d]pyrimidin-4-amine, 5-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

$$\bigcap_{N \to 1}^{N} \bigcap_{N \to 2}^{H} \bigcap_{N \to 2}^{N} \bigcap_{N \to 2}^{H} \bigcap_{N \to 2}^{H}$$

Page 72

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C:\STNEXP4\QUERIES\09399083x.str
chain nodes :
                       10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 43 44 45 50
ring nodes :
                        1 2 3 4 5 6 7 8 9
chain bonds :
                        5-50 7-10 10-43 11-17 12-19 13-23 14-18 15-21 16-24 19-20 21-22 23-25 23-26
                        24-27 24-28 43-44 44-45
ring bonds :
                       1-2 1-6 1-9 2-3 3-4 4-5 5-6 6-7 7-8 8-9
exact/norm bonds :
                        1-9 \quad 5-50 \quad 7-10 \quad 8-9 \quad 10-43 \quad 11-17 \quad 12-19 \quad 13-23 \quad 14-18 \quad 15-21 \quad 16-24 \quad 19-20 \quad 21-22 \quad 23-25 \quad 14-18 \quad 15-21 \quad 16-24 \quad 19-20 \quad 21-22 \quad 23-25 \quad 18-18 \quad 18
                        23-26 24-27 24-28 43-44
exact bonds :
                        6-7 7-8 44-45
normalized bonds :
                       1-2 1-6 2-3 3-4 4-5 5-6
```

```
isolated ring systems :
   containing 1 :
G1: [*1-*2], [*3-*4], [*5-*6], [*7-*8], [*9-*10], [*11-*12]
Hydrogen count :
   3:>= minimum 1
Match level :
   1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:CLASS
    12:CLASS 13:CLASS 14:CLASS 15:CLASS
                                          16:CLASS 17:CLASS 18:CLASS 19:CLASS 20:CLASS
                       23:CLASS 24:CLASS 25:CLASS 26:CLASS 27:CLASS 28:CLASS 43:CLASS
   21:CLASS
             22:CLASS
   44:CLASS 45:CLASS 50:CLASS
Generic attributes :
   10:
   Saturation
                         : Unsaturated
```